

Two-way immersion bilingual education in theory and in practice: Investigating patterns of
Language teaching and learning in a Spanish-English, two-way classroom

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Abstract

Two-Way Immersion (TWI) programs represent a model of bilingual education that integrates balanced numbers of English speakers with speakers of a minority language for all aspects of content area instruction, at least half of which is conducted in the minority language, with the aim of fostering complete bilingual and bicultural competence in all students. Ideally, students act as language models and language learners by turns, thereby creating symmetrical immersive environments in each language. TWI has been regarded by experts as the most effective and culturally sensitive means by which to develop bilingual proficiency while simultaneously condoning high levels of academic achievement, allowing students to apply concepts and skills developed in their first language to the second. The present study draws upon data collected through a combination of classroom observations and teacher interviews conducted in the first grade classrooms of a Spanish-English TWI program in order to compare the theoretical ideal of the TWI model with the practical realities of bilingual instruction. Contrary to what one would expect, results indicate that 1) there existed substantive differences in instruction between the two program languages, and 2) the students collectively possessed a lower proficiency in the minority language. The study interprets the findings in light of the linguistic and pedagogical theories underlying TWI and supports research suggesting areas for further investigation with regard to the school- and classroom-level frameworks necessary to promote bilingual proficiency in all students.

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Part I: Two-Way Immersion in Theory - Literature Review

1. Introduction

Bilingual Education in the U.S.

The provision of bilingual instruction to English Language Learners (ELLs) in United States public schools has incited considerable public debate. Indeed, the concept of bilingual education seemingly contradicts the notion that it is the responsibility of public schools to educate immigrant children to speak English as efficiently as possible and that, further, complete immersion in English represents the most effective means by which to achieve this objective. Thus, many individuals cite concerns that academic support in the native language hinders immigrant children's acquisition of English, which represents a fundamental stepping stone to social mobility in the United States. However, contrary to this view, a number of studies have attested that native language instruction does not impede ELL acquisition of English (Ramirez, Yuen, & Ramey 1991; Howard, Christian, Lindholm-Leary, & Rogers, 2007). These studies have further illustrated that skills and understandings developed in the native language can be applied to ELLs' apprehension of curricular material in English, thereby enhancing their academic achievement (Thomas & Collier, 1997). Simultaneously, in light of current trends towards cultural and economic globalization, bilingual competence at both the individual as well as the national level is increasingly viewed as an asset rather than a danger to social cohesion.

These revelations concerning the potential benefits of academic instruction in a minority language for English-speaking and minority language-speaking students alike have motivated an increase in the prevalence of the Two-Way Immersion (TWI) model of bilingual education. This

model is distinguished from other bilingual programs in that it features the integration of equal numbers of English-speaking students with native speakers of a minority language with the aim that all students graduate from the program having attained full working bilingual proficiency, multicultural awareness, as well as academic curriculum mastery across both program languages. In this manner, the model harnesses the existing linguistic and cultural competencies of its diverse student body to provide bilingual and bicultural enrichment for all program participants, without sacrificing academic performance.

Plan for the Study

The overarching aim of the present study is to compare and contrast the theoretical concept of the TWI model with a case study of the model as it is practically implemented in a U.S. public school.

Part one encompasses chapters one through six, which outline the theoretical model of TWI as it is described in the literature on bilingual education. Moreover, these chapters reference the pedagogical and linguistic theories underlying the model's basic structure. These sources discuss the program structures, curriculum and assessment procedures, and instructional techniques, as well as community, family, and affective factors that influence learner outcomes in TWI programs, and suggest best practices in each of these areas that optimize the programs' impact. Part two comprises chapters seven through fourteen, and presents the particular example of a Spanish-English TWI program housed within a public elementary school in Eastern Massachusetts. The information presented in this section was ascertained through two sets of classroom observations conducted at disparate points throughout a single school year in the first

grade classrooms of the two-way program. In addition to classroom observations, the present study draws upon interviews with the observed instructors of the bilingual program as well as one of the program's founders. Names of interview participants, students, as well as the research site, have been altered in order to maintain confidentiality.

In itself, part two can be divided into three principal sections: chapter seven outlines the research methodology utilized to gather and analyze the presented data. Chapters eight, nine, ten, eleven, and twelve describe the field data, identifying relevant features of the school, program, and observed classrooms; illustrating patterns in student participation, instructional practices, and student outcomes demonstrated in the classroom observations; as well as summarizing the teachers' pedagogical goals and philosophies, as related through interviews. Finally, chapters thirteen and fourteen synthesize the field data with suggestions in the literature regarding the ideal of TWI, ultimately suggesting areas in which the observed program could improve its impact on the community which the school serves. Furthermore, these chapters identify aspects of the conceptual TWI model that may be incompatible with the realities of raising bilingual children in the United States. These concluding chapters additionally propose areas in which further research is required to determine the school- and program-wide policies as well as the instructional practices that condone the development of bilingual proficiency in all students.

2. Guiding Principles for Two-Way Immersion

Dual Language Education

This chapter will begin with an overview of the most prevalent models of bilingual education in the U.S., as well as the monolingual instructional models aimed at serving ELL populations. The Center for Applied Linguistics (CAL) has investigated issues pertaining to language learning in school contexts extensively, and thus renders the most current insights into this topic. The aim of the Center is to foster improved communication across cultural and linguistic boundaries, and it offers school practitioners with a comprehensive range of resources to aid in the design and implementation of bilingual education and English as a second language programs (CAL, 2014c).

The CAL (2014a) defines dual language education as any program which imparts “high levels of language proficiency and literacy” in each of two program languages, “high levels of academic achievement” and “an appreciation for and an understanding of diverse cultures” in its students. Dual language programs can therefore be said— according to Lambert’s (1974) distinction between additive and subtractive bilingualism— to endorse an additive view of bilingualism, in that they place equal importance on the development of the students’ home language as well as that of a second language, regardless of which of them represents the dominant language of society. A subtractive view of bilingualism, conversely, entails the student replacing his or her home language with the second language.

At contrast with dual language education models, most programs serving English language learners in the United States are subtractive in their policy orientation towards bilingualism. The most prevalent form of bilingual education in the United States is transitional

bilingual education (TBE), which serves speakers of minority languages exclusively, utilizing their home language as a medium for curricular instruction only until the students are proficient enough in English to transition into a mainstream, monolingual classroom (Hunemorder, 2005). Students receive increasing amounts of content area instruction in English, usually over a period of two to five years, with some programs offering an early-exit option for students whose English acquisition progresses more rapidly than that of their peers. While these programs acknowledge the instructional need for speakers of minority languages to develop literacy in their native language as a foundation for acquiring English literacy, the ultimate aim of the majority of these programs is to teach ELLs English as efficiently as possible; some late-exit TBE programs, however, profess a native language maintenance component. A subset of TBE programs includes integrated TBE, in which minority language speakers are integrated with native English speakers from mainstream classrooms during the English language portion of their day.

A common monolingual alternative in school districts with large numbers of ELL students is known as sheltered English immersion (SEI), in which minority language speakers are offered instruction in English that is modified to be more easily comprehensible than colloquial spoken English. SEI programs can be structured such that ELLs are integrated with their monolingual peers, with students receiving the support of a teacher's aid during regular curricular instruction in a mainstream classroom. Alternatively, in non-integrative SEI programs, students receive the entirety of their curriculum in a sheltered immersive environment, separated from the remainder of the school population. In rare cases, some SEI programs offer native

language support to minority language speakers where program personnel are able to provide such support (de Jong, 2011).

The additive policy orientation towards bilingualism that dual language programs endorse is based upon research findings indicating that extended academic instruction in a student's native language increases academic achievement and literacy proficiency in the second language. (Ramírez, 1992; Thomas & Collier, 1997; Willig, 1985). The implications of these findings are especially noteworthy in the case of English language learners, as they signify that native language academic instruction promotes English acquisition and scholastic achievement. Indeed, Thomas and Collier's (1997) study analyzing the student records of over 700,000 minority language speakers enrolled in five separate school districts over a fourteen-year span found that extended academic exposure to the home language constituted the foremost predictor of long-term academic success. Studies have further proven that bilingual instruction does not compromise students' content area knowledge; on the contrary, students of all language backgrounds display at- or above-grade level achievement in well-implemented dual language programs (Ramirez et al., 1991; Howard et al, 2007).

There are three major models of dual language education currently in practice in the United States: developmental bilingual programs, in which all participants are speakers of a minority language and receive instruction in their native language as well as the dominant language of society; foreign language immersion programs, in which program participants are all native speakers of the dominant language of society and are immersed in a foreign language for content area instruction, often receiving supplementary literacy instruction in their native language; and two-way immersion (TWI), in which balanced numbers of native English speakers

and native speakers of a minority language are instructed in literacy and academic content in English and the minority language, with at least 50% of instruction in the minority language throughout all grades (de Jong, 2011; Howard et al., 2007).

Distinguishing Features of Two-Way Immersion

The TWI model is distinguished from other forms dual language education in its integration of students who are dominant in each of the languages of instruction. In fact, interactions between students of disparate language backgrounds are of primary importance to the TWI model as each of the students, depending on his or her language of dominance, functions as a language model or a language learner by turns, according to the language of instruction.

Further, rather than explicitly teaching students each of the program languages as a separate subject area, the model utilizes content area instruction as well as the natural interactions between students as a vehicle for transmitting second language skills. Immersion models such as TWI are built on the premise that the most successful language learning experiences occur through meaningful, natural communication in the target language, preferably with native speakers (Krashen, 1982). Research findings suggest that models incorporating authentic target language interactions between students of various language backgrounds, in conjunction with student-teacher interactions, are more effective than transmission models of teaching, as they allow for more language modeling and encourage higher levels of “dialogic engagement” (DePalma, 2010, p. 6). Accordingly, the TWI model relies on the presence of

balanced numbers of native speakers of each program language to create symmetrical immersive environments in both languages.

Historical Origins of the Two-Way Immersion Model

The Coral Way Elementary School in Dade County Florida represents the first documented instance of two-way instruction. Responding to a rapid influx of Cuban immigrants to the area, in 1963, the school established a Spanish-English two-way bilingual program to accommodate the children of refugees fleeing Fidel Castro's regime. They selected the two-way model as many of the students' families professed a desire to eventually return to Cuba and, as such, wished for their children to receive academic instruction in Spanish. The model gained relatively little traction through the late 1980's, with only thirty programs reported nationwide in 1989, before experiencing a rapid increase in popularity in more recent years (de Jong, 2011). Presently, there are 438 two-way immersion programs across thirty one states and the District of Columbia registered in a nationwide database maintained by the Center for Applied Linguistics (2014b). The vast majority of TWI programs in the United States (estimated at 93%) utilize Spanish and English as program languages, though programs utilizing Arabic, Cantonese, French, German, Italian, Japanese, Korean, Mandarin, and Navajo exist as well (CAL, 2014b; de Jong, 2011).

The Promise of TWI

TWI's sudden rise in popularity over recent years can be attributed to a dual public interest in raising academic achievement for ELLs and bilingual enrichment for monolingual

English speakers. In fact, TWI has been touted by experts to be the most effective bilingual program in supporting long-term academic achievement for ELLs (Dorner, 2011) as well as the most efficient and culturally sensitive means by which to develop bilingualism in students of diverse language backgrounds (DePalma, 2010). However, the success of TWI programs is contingent upon careful planning and effective implementation. In order to ensure academic achievement and bilingual proficiency for students of all language backgrounds, programs must take careful consideration of: program structure, curriculum standards and assessment, instructional practices, as well as the internal and external factors affecting the students' language acquisition (Howard et al., 2007). The subsequent chapters will outline suggestions from the literature pertaining to each of these features, detailing the frameworks and practices necessary to reap the full the benefits of two-way instruction.

3. Program Structure

Several variations in structure exist among individual TWI programs, including: distribution of languages of instruction, which encompasses both the quantity of instructional time allotted to each program language as well as the contexts in which each language is used; language of initial literacy instruction; program length; and the program's status within the school in which it is housed. Studies have been conducted that shed light on the relationship of each of these structural variables with student outcomes, though few have reached definitive conclusions identifying the features of an ideal TWI program structure.

Variations within the Two-Way Model

Within the TWI model, individual programs differ in terms of the distribution of the languages of instruction. In this regard, two major variants have emerged: the 90:10 model and the 50:50 model. In the 90:10 model, students receive 90% of curricular instruction in the minority language during the early years of the program and 10% in the majority language. This ratio of minority to majority language instruction gradually levels out as the program progresses, until students receive 50% of their instruction in each language during the program's later years. Alternatively, in the 50:50 model, the students receive half of their instruction in each language throughout the entire program .

The circumstances under which each language is used vary among individual programs as well: the two languages can be divided by week, day, morning and afternoon, or subject area. Moreover, students may have one or two classrooms and teachers.

The timing of initial literacy instruction in each of the program languages represents a further source of variation among TWI programs. The CAL identifies three potential models of early biliteracy instruction that are currently implemented in U.S. TWI programs: “partner language first,” in which all students learn to read in the minority language before beginning significant English literacy instruction in second or third grade; “both languages for everyone,” in which all students learn to read in both languages simultaneously; and “native language first,” in which students are separated by language of dominance for portions of the day during the early grades in order to develop literacy in their native language first (Howard & Sugarman, 2009).

A further source of variation between TWI programs is the status of the program within the school that houses it. While many TWI programs represent a strand within an otherwise monolingual school, some TWI programs extend throughout the entire school.

Finally, TWI programs vary in length. They often begin in pre-K, kindergarten, or first grade, and may extend any number of years. Most TWI programs (79%) operate only at the elementary level (de Jong, 2011).

Program Length

With regard to program length, recent research indicates that the most successful dual language programs provide students with full bilingual instruction for at least six years (Howard et al, 2007). There is a substantial research base on immersion and bilingual education to confirm that this is the average amount of time necessary for students, assuming no initial proficiency, to attain near-native communicative competence and grade-level academic achievement in a second

language (Collier, 1989; Cummins, 1981; Lindholm-Leary & Borsato, 2006). Further, Lindholm-Leary and Borsato's (2006) review of research on program design and ELL achievement reveals that ELL students' outcomes on measures of English ability prove more favorable the longer they receive instructional support in their native language through a dual language program, as compared to corresponding groups of ELLs in mainstream programs.

Distribution of Languages of Instruction

The literature on best practices in bilingual education proves inconclusive on the subject of the proportion of instructional time spent in each language of instruction and its relationship with student success in attaining bilingual proficiency and grade-level academic achievement in TWI programs. In particular, the studies of Christian et al. (1997) and Lindholm-Leary (2001)—both of which compared the performance of students in 90:10 and 50:50 Spanish-English TWI programs on measures of English language proficiency, Spanish language proficiency, and mathematics—yielded divergent results: while the Lindholm-Leary study reported that all students, regardless of language background, experience more favorable outcomes in Spanish acquisition under the 90:10 model than the 50:50 model, the Christian et al. study concluded that students received comparable scores in measures of language proficiency in both languages as well as mathematics under both models. (Howard et al., 2007).

Indeed, the reports of Ramirez (1992)—who conducted an eight-year study monitoring the outcomes of Latino ELL students enrolled in both major models of TWI, as well as TBE, SEI, and mainstream programs—and Willig (1985)—who performed a statistical analysis of twenty three previously conducted surveys of various models of bilingual education in the U.S.

— indicated that the distribution of languages of instruction did not influence student outcomes in TWI programs to any significant degree, but that programs which were most consistent in implementing their selected model (i.e. 50:50 or 90:10) produced more favorable student outcomes across measures of language proficiency and academic achievement. Likewise, Téllez (1998), in a large-scale survey of ELL students enrolled in various models of ESL and bilingual education throughout the country, found that students who alternated between program models were the lowest-achieving of all. These findings attest to the importance of complete horizontal (within grade levels) and vertical (across grade levels) alignment of the selected bilingual program model.

A CAL report reviewing literature on program model and its effects on student outcomes in the TWI classroom refers to multiple potential benefits and drawbacks of each instructional model. The 90:10 TWI model was designed to mirror French-English Two-Way Immersion programs in Canada (Brisk, 1998; Howard, E.R. and Sugarman, J., 2009). The reasoning behind the increased early instructional time the model allots to the minority language is twofold: first, it provides English-speaking students with a rich, aural and written minority language input that they are unlikely to receive outside of school— while, by contrast, it is probable that minority language speakers enjoy at least passing exposure to spoken and written forms of English in their daily, social lives; second, 90:10 programs in the United States often cite the fact that speakers of minority languages are more likely to be of limited socioeconomic means and, thus, the parents of ELL students may lack the educational background and/or material resources to instruct their children in the literacy of their native language. As such, an initial emphasis on the minority language aids ELLs in overcoming deficits in home literacy instruction that native English

speakers are less likely to experience (Howard et al., 2007). By contrast, common arguments in favor of 50:50 programs include that the model provides maximal opportunities for cross-linguistic transfer as all aspects of curricular instruction, including literacy, can be fully synchronized between the two program languages. Further, the report concedes that the 90:10 model risks lower scores on standardized tests conducted in English in early grades and, for this reason, often fails to earn community support in spite of prospective long-term advantages (Howard & Sugarman, 2009).

Language of Initial Literacy Instruction

Literature surrounding language of initial literacy in early biliteracy instruction is equally ambiguous. Research on bilingual development has indicated that substantive early literacy instruction in one's native language improves outcomes in learning literacy in a second language, even when the languages utilize disparate orthographies (Cummins, 1991).

Numerous studies have evidenced the integral role of cross-linguistic transfer, or the unconscious process of applying competencies developed in one language to a second language, in biliteracy development. These reports have shown that bilingual learners apply their understandings of language-independent aspects of literacy— such as phonological awareness and meaning-making strategies— developed in their first language when approaching literacy activities in a second language (Cummins, 1991; Durunoglu, 2002). It has further been proven that cross-linguistic transfer is bi-directional and can occur from a first to a second language or vice versa (de Jong, 2011). While research on cross-linguistic transfer in bilingualism development has traditionally focused on the effects of a speaker's first language (L1) on the

second language (L2), more recent scholarship has evidenced that a language learner's L2 can exert a marked influence on his or her L1 (Bialystok, 2001; Pavlenko & Jarvis, 2002). However, Su's (2012) study analyzing apologizing behavior in native speakers of Chinese learning English as a second language found that L2 influence on L1 was less pronounced than that of the L1 on the L2, and manifested itself only in the most advanced second language learners.

Cummins (1979) used the principle of cross-linguistic transfer to develop his interdependence hypothesis, which explains the seemingly contradictory research finding that minority language speakers enrolled in bilingual programs are able to achieve similar or more favorable outcomes on measures of proficiency in the majority language when compared to students receiving the entirety of their instruction in the majority language (Ramirez, 1992; Thomas & Collier, 1997; Willig, 1985), attributing it to the interconnectedness of the students' first and second language skills. Thus, while ELLs enrolled in bilingual programs are allowed to build upon conceptual and linguistic knowledge acquired in their first language, thereby bolstering and enriching their English knowledge base, ELLs enrolled in English immersion programs do not receive this opportunity. Cummins refers to bilingual individuals' base of implicit metalinguistic knowledge as a "common underlying proficiency" (CUP). Thus, any development of bilingual students' CUP that occurs in one language will inevitably benefit the other language.

Nonetheless, there is no research to suggest conclusively that native language literacy instruction must occur prior to or concurrently with literacy instruction in a second language. Experts who endorse sequential biliteracy instruction argue that the development of oral language skills is a prerequisite to learning literacy in any language (Rodriguez, 1998). Certainly,

there is empirical evidence to confirm the notion that oral language skills support literacy development (National Reading Panel Report, 2000), and that readers draw upon their phonological understandings of a language during the process of reading (Adams, 1990). However, experts recommending a simultaneous approach to biliteracy instruction argue that sequential approaches deprive students of valuable exposure to written forms of one of the program languages (Anderson and Roit, 1998). This discrepancy in the literature may reflect differing instructional needs of the various populations that bilingual programs serve: it is possible that speakers of minority languages may be more receptive to initial literacy instruction in English as a result of their exposure to the language in their social lives, whereas English speakers learning minority languages might need a more robust oral-aural program prior to beginning literacy instruction in a second language.

The CAL refrains from advising programs on the issue of language of initial literacy instruction, and posits that certain language pairs may be more conducive to simultaneous biliteracy development than others. The organization speculates additionally that questions of students' instructional needs in terms of initial native literacy support may vary on an individual basis (Howard et al., 2007).

The general lack of consensus demonstrated in the literature on dual language education concerning program-level features in TWI programs and their impact— or lack thereof— on learner outcomes, suggests that the issue of selecting a program model might be less integral to student success than questions of optimizing curriculum design, assessment procedures and instructional practices within each model.

4. Curriculum and Assessment

Aligning Curriculum Standards

Current trends towards standards-based educational reform have emphasized the establishment of clear, commonly defined goals in promoting and measuring student achievement. Moreover, recent legislation such as Title I of the Improving America's Schools Act and the No Child Left Behind Act have called for schools nationwide to hold ELL students to identical expectations of grade-level academic achievement as the general school population, and further mandate schools to monitor ELL achievement separately, adjusting instructional practices according to their unique needs (U.S. Department of Education, 1994; U.S. Department of Education, 2001).

Accordingly, in a TWI context, given that one of the fundamental goals of the model is the complete and balanced bilingual competence of all students, it is of particular importance that grade-level curriculum standards be maintained across both program languages. In their descriptive analysis of four bilingual programs in Texas, Guerrero and Sloan (2001) found that programs utilizing a consistent set of literacy goals across both program languages that, in turn, were aligned with those of the mainstream English curriculum, yielded the most positive outcomes in Spanish literacy. To ensure that students attain high levels of academic proficiency in both languages, the CAL recommends that students be held to content standards that meet or exceed state and district expectations, and that achievement data should be used to "shape and/or monitor the instructional program," tailoring it to the demonstrated instructional needs of the particular population the program serves (Howard et al, 2007). Cummins (1994), in his writings dealing with literacy development in language minority students, underscored the importance of

maintaining high standards for students in bilingual programs, asserting that optimizing instructional strategies to ensure second language learners' comprehension of the curricular material should "not entail a dilution in the conceptual or academic content of the instruction" (p. 42 - 43).

While aligning curriculum standards across program languages constitutes a fundamental objective for TWI programs, practical concerns can impede programs' capacity to present and assess identical curricular material in each program language. For example, in order to maintain a coherent, high-quality curriculum across both program languages, it is necessary that the program obtain quality reading materials of a variety of levels and themes in both English as well as the partner language. In her work investigating the needs of bilingual students in U.S. schools, Brisk (1998) suggests that teacher- and student-made texts can compensate for any shortcomings in commercially produced, level appropriate, and culturally relevant reading material in either of the program languages. Further, since students are expected to develop identical competencies in each language, this model of mirrored curriculum standards necessitates a close level of collaboration among teachers in instances where instruction is divided between two teachers depending on the language of instruction.

Incorporating Bilingualism and Multiculturalism Goals into the Curriculum

To monitor student progress towards the attainment of program bilingualism goals, an effective TWI curriculum includes language and literacy learning objectives that are differentiated for native language speakers and second language learners. Teachers in TWI programs are not responsible for providing explicit language instruction separately from the

presentation of curricular material; on the contrary, the use of content area instruction as a means by which to provide language learners with linguistic input represents a primary feature of the TWI model. Thus, the TWI language arts curriculum should specify which linguistic structures the students should acquire as well as the manner in which these structures will be integrated into the content area instruction— for example, using preterit and imperfect verbs during history instruction— thus ensuring that students not only apprehend the concepts being taught, but also acquire the language necessary to perform academic and social tasks (Howard et al, 2007).

Furthermore, as “[developing] an appreciation for and an understanding of diverse cultures” (CAL, 2014a) constitutes a primary goal of the TWI model, the curriculum must draw upon lessons and materials reflecting features of the students’ native cultures. Nieto's (1992) work outlining the potential benefits of bilingual and bicultural education highlights the importance of including native culture in multiple areas of the curriculum, noting that occasional culture-based festivals or appreciation weeks are liable to trivialize culture. Several authors advocate for the inclusion of explicit discussions of cross-cultural differences and similarities in order to foster cross-cultural appreciation as well as aid students negotiate situations of cultural tension which they may experience in their daily lives (Nieto, 1992; Brisk, 1998; Howard et al., 2007).

Similarly, in order to confront issues of linguistic diversity and conflict, the CAL recommends that the curriculum provide for dialogues about “linguistic diversity and language status issues as is developmentally appropriate” (Howard et al., 2007, p. 63) with a particular emphasis on elevating the status of the minority language. Certainly, numerous studies have demonstrated that minority languages are often underrepresented in TWI programs, failing to

reach the requisite 50% of instructional time due to pervasive student and teacher English use during minority language instructional time (Alanís, 2000; Potowski, 2004). In three case studies of Spanish-English TWI programs at the elementary level, Edelsky (2006) found that students used English frequently during Spanish class, even when addressing monolingual Spanish-speaking instructors, and, in all three cases, demonstrated little to no progress in Spanish acquisition over the course of an academic year. She thus postulated that implicit perceptions of the relative societal prestige of English as compared to Spanish deterred students from using the minority language. DePalma (2010) corroborated this sentiment in her case study of a Spanish-English two-way kindergarten. Observing the students' preference for English use during Spanish instructional time, she underscored the importance of explicit, whole-class discussions dealing with the relative statuses and roles of English and Spanish in American society, suggesting that these dialogues could have served to remediate the observed language imbalance by encouraging students to use Spanish.

Assessment

When conducted consistently and in both languages of instruction, assessments serve to document the progress of various groups in TWI programs with regard to oral language, literacy, and academic achievement standards. In developing the curriculum, program administrators and instructors identify the communicative tasks students should be able to complete in each language. Assessments, then, should be task-based, contextualized, and measure practical communicative competence in both languages (de Jong, 2011; Howard et al., 2007).

De Jong (2011), in her work investigating the policies and practices necessary for promoting bilingualism in a school context, stresses the importance of adopting a holistic view of bilingualism when assessing emergent bilingual students. A holistic view of bilingualism considers the linguistic competence of a bilingual individual to be a single, unified entity rather than the sum of two monolingual competencies (Grosjean, 1989). This view recognizes that bilinguals and multilinguals acquire and develop each of their languages in disparate contexts. For example, a child born to Spanish-speaking parents in the United States may use Spanish with older relatives, English with siblings, friends, and at school, and read books in both English and Spanish. Accordingly, the child will experience differing patterns of exposure to vocabulary in each language; he or she might become more proficient at using English to speak about school and social activities, preferring to use Spanish to discuss emotional and personal matters. As such, de Jong (2011) indicates that tests of language proficiency assessing specific domains in a particular language will inevitably prevent students from demonstrating their full range of linguistic capacities in that language.

An additional piece to consider in designing assessments for bilingual children is the distinction between conceptual knowledge and lexical knowledge, especially when testing for content area understanding. As de Jong (2011) points out, although bilinguals may have smaller vocabularies in any given language than the average monolingual, across languages, they may possess a broad conceptual framework. For this reason, to tease apart issues of language competence and conceptual knowledge, TWI programs must utilize multiple measures of assessment in both languages (Howard et al., 2007). Ideally, as Solano-Flores and Trumbull (2003) suggest, assessments should be designed to include identical items in both program

languages. Combined aptitude and achievement tests such as the Bilingual Verbal Abilities Test (Munoz, Shrank, Cummins & Alvarado, 1998)— which provides students with test questions in English, then offers items answered incorrectly in the student’s other language— represent a promising means by which to redress issues of language ability impeding reliable assessment of bilingual students’ content-area knowledge (Télez, 1998). In this manner, programs can track the progress of students in attaining bilingualism and biliteracy objectives separately from content-related goals.

Recognizing Student Backgrounds

To successfully integrate bilingualism, biliteracy, and multiculturalism goals across the curriculum, and then accurately assess the students’ bilingual repertoires, instructors and other curriculum developers must be familiar with and respectful of the students’ linguistic and cultural backgrounds. It is for this reason the CAL asserts that a feature of particularly successful TWI programs is the systematic collection of demographic information from the students including, “ethnicity, home language, time in the United States, types of programs student has attended, [and] mobility,” (Howard et. al, 2007, p. 105) which can subsequently be used to inform curriculum, assessment, and instructional choices. Because bilingual students develop context-specific linguistic proficiencies that integrate to form a single communicative competence, the issue of determining a student’s language of dominance, or “the language that the child is most proficient in” (de Jong, 2011, p. 54) is not always as simple as determining which language the child uses in the home. To become familiar with the entire scope of each student’s communicative repertoire, Brisk and Harrington (2000) propose a set of over thirty questions

instructors and curriculum developers can ask incoming program participants, addressing such topics as: family immigration history, parent academic and linguistic background, home language and literacy practices, and the student's prior experience with each program language in an academic capacity (de Jong, 2011). In this manner, TWI programs can tailor both assessment procedures as well as instructional practices to the linguistic and developmental needs of their emergent bilingual students.

5. Instruction

Responding to Diverse Needs During Instruction

Quality instruction is considered to be a cornerstone of any successful educational model, monolingual or bilingual. Indeed, Wenglinsky's (2000) analysis of National Assessment of Educational Progress data illustrated the primary significance of quality instruction, reporting that, after controlling for socioeconomic class, classroom-level factors were the chief determinant of student achievement in eighth grade math. However, providing high-caliber instruction can prove especially difficult in TWI programs due to differing instructional needs between students of disparate linguistic abilities and backgrounds. Teachers face the additional challenge of monitoring student progress towards bilingualism, biliteracy, and multicultural competence goals alongside content area mastery. As a result, it is particularly important for TWI instructors to employ a variety of pedagogical techniques that "respond to different learning styles" (Howard et al, 2007, p. 12).

Furthermore, recent research has emphasized the reciprocal interaction model of instruction, in which teachers act as facilitators of learning by engaging in authentic dialogues with students, suggesting that it yields more positive student outcomes than teacher-centered instructional models (Palinscar & Brown, 1984). Proponents of this interactive model of student-centered instruction maintain that it fosters the development of higher-level cognitive skills (Collins, Brown, & Newman, 1989), whereas traditional transmission models emphasize the memorization and reproduction of facts as they are presented by the teacher. TWI instructors thus must take into account how they will facilitate meaningful teacher-student dialogues that inspire learning on the part of the entire class given the students' varying language competencies.

In order to provide equitable, quality instruction for all program participants, it is important that instructors in TWI programs possess a developed understanding of the theories of underlying dual language education, as well as strategies used to address the needs of native speakers as well as second language learners. TWI instructors are further encouraged to stay abreast of current research on second language acquisition, bilingualism and biliteracy development, as well as immersion learning (Brisk, 1998; Howard et al, 2007).

Positive Student-Teacher Interactions

The process of learning a second language and utilizing it to communicate in front of an audience of one's peers can put second language learners of any age in a position of emotional vulnerability. The TWI classroom should, therefore, constitute an environment in which all student attempts at communication are valued and encouraged. As such, the promotion of positive teacher-student interactions represents an instructional objective of fundamental importance to the TWI classroom (De León & Medina, 1998; Howard et al, 2007).

Towards this end, effective instructors in TWI programs avoid over-correcting form-related errors, which can frustrate and intimidate second language learners, thereby discouraging them from attempting communication in the target language. In this regard, experts concur that instructors of second language learners should emphasize meaning over form-related issues such as grammar or pronunciation, limiting corrections to errors that impede comprehensibility, or those that are systematic and recur frequently in a student's speech and writing, rather than as a product of a temporary lapse in performance. In her handbook for instructors in multilingual and multicultural classrooms, Hernández (1997) suggests that teachers refrain from correcting errors

— even those that impair communication— if they result from an attempt to express a concept that is beyond the student’s intellectual or linguistic ability level, as such corrections will not necessarily lead to learning on the part of the student. She asserts, “the *teachability* of an item is constrained by its *learnability*, as learners can only be taught what they are psycholinguistically ‘ready’ to learn” (p. 129). For this reason, although sensitivity and responsiveness to correction can vary between individual students, as a general rule, correction of language errors tends to benefit older learners more than children.

The Code Switching Question

The use of multiple languages within a single conversation or text is frequent in bilingual discourse; code-switching occurs when a multilingual individual alternates between multiple languages within a single conversation. These switches can manifest themselves within phrases or sentences, known as intrasentential code-switching, or between phrases or sentences, known as intersentential code-switching (de Jong, 2011). Numerous authors have indicated that code switching represents an important and natural sociolinguistic function of the bilingual communicative repertoire (Brisk, 1998; de Jong, 2011; Ferguson, 2006; García & Kleifgen, 2010; Herdina & Jessner, 2002). Accordingly, TWI instructors are encouraged to accept student responses in the target language, the native language, or a combination thereof.

Experts condoning code switching in the second language classroom have emphasized that this common bilingual phenomenon is governed by systematic rules which dictate which switches are appropriate in various contexts (Herdina & Jessner, 2002). Further, these authors stress that code switching is purposeful (Ferguson, 2006); in the context of the classroom, for

example, teachers may draw upon the non-target language to render curricular material more accessible or comprehensible to language learners, teach vocabulary and identify cognates, forge stronger personal bonds with students, affirm students' linguistic and cultural identities, as well as for classroom management purposes (Gajo, 2007; García & Kleifgen, 2010).

However, this native language support should not be so prevalent that students come to expect and rely upon adult translations, thereby compromising their development of critical receptive strategies and productive skills in the second language (Howard et al., 2007). Indeed, monolingual lesson delivery, in which entire lessons or periods of time are conducted in a single language, has been shown to be more effective than instructional models designed around language mixing within lessons (Swain, 1983).

In order to maintain the delicate balance between allowing students native language support and encouraging their use of the target language, Brisk (1998) suggests that instructors differentiate between content area instruction—which, she maintains, is enriched by native language support—and language arts instruction, where teachers may justifiably wish to enforce stricter language separation guidelines. She further distinguishes between teacher and child code switching, stating that children, as they learn to become functioning bilinguals, should be allowed to code switch as they please. Teachers, she contends, represent language models and therefore should be more discerning about their non-target language use (Brisk, 1998).

Explicit, but Integrated Second Language Instruction

Like code switching, explicit second language instruction in the immersion classroom must be employed judiciously and in moderation. Many immersion models of language learning

originated in the natural approach, which upholds that the most profound second language acquisition occurs in a fully immersive environment with no explicit instruction, similar to the manner in which one would learn a first language (Krashen & Terrell, 1983). More recent scholarship, however, has revealed that the fluency and grammar ability of students receiving second language instruction based in the natural approach is not native-like, indicating a need for explicit second language instruction (Lindholm-Leary, 2001). Nonetheless, as a central feature of the TWI model is the integration of language and content, language instruction in the TWI classroom should not follow traditional instructional models of rote vocabulary memorization and grammar translation. Instead, teachers should be cognizant of the linguistic structures and skills the students need to develop or practice with each content area, and utilize this knowledge to inform their instructional decisions (Howard et al., 2007).

Moreover, instructors in successful TWI classrooms employ strategies to motivate students to provide linguistically rich responses, thereby allowing the more proficient speakers to model the correct use of more complex linguistic structures and functions, and encouraging language learners to challenge their communicative boundaries and practice their emerging second language skills. These strategies can include: requiring students to answer in complete sentences and promoting language flexibility by not permitting students to respond to reading comprehension checks with verbatim repetitions of the text (Anderson & Roit, 1998).

TWI instructors are encouraged to discuss issues of language explicitly, however, in comparing the grammar, lexicon, and phonetics of the two program languages; in so doing, instructors facilitate cross-linguistic transfer from the students' native languages into their second language, or vice versa (Garcia & Kleifgen, 2010). The identification of cognates represents a

relatively simple means by which instructors, even without extensive knowledge of the program's partner language, can incite positive transfer and expand student vocabularies. Research on biliteracy has proven that awareness of cognates promotes bilingual students' comprehension of reading material in both the first and second language, as well as across levels and content areas (Nagy, García, Durgonoğlu, & Hancin-Bhatt, 1993).

Providing Rich but Comprehensible Input

TWI instructors must negotiate the challenge of providing students with input that is optimized for second language development, but that sufficiently addresses curriculum standards. Lindholm-Leary (2001) identifies four characteristics of optimal input for second language development, asserting that language input must be: tailored to the learner's level of understanding, interesting and relevant, of sufficient quantity, and challenging.

The TWI research review of Howard et al. (2007) identifies a number of strategies native speakers can use to adjust their speech to render input more comprehensible for second language learners:

- Slower, expanded, simplified, and repetitive speech oriented to the "here and now"
- Highly contextualized language and gestures
- Comprehension and confirmation checks
- Communication that provides scaffolding for the negotiation of meaning by constraining possible interpretations of sequence, role, and intent (p. 13)

Teachers can incorporate these elements into instruction and support second language learners' apprehension of curricular material by drawing upon sheltered instructional techniques, which can include the use of visual aids, semantic mapping, and modeling instruction (Carrasquillo, 1998; Howard et al., 2007).

Furthermore, with regard to selecting reading material for whole-group literacy activities such as read-alouds, numerous authors advocate the language experience approach, in which teachers utilize texts that contain familiar story arcs and/or reflect the sociocultural realities of the students. This approach ensures that students possess adequate background knowledge with which to interpret a text, thereby increasing comprehension (Carrasquillo, 1998).

Structuring for Oral Language Development

The TWI model is built on the premise that second language development is facilitated by extensive interactions with native speakers. Instructors play an important role in facilitating and guiding student-teacher and student-student discussions and should, therefore, be aware of the language models and language learners of each class, providing them with ample opportunities to interact in both academic and social capacities. Furthermore, to promote highly developed oral skills in both languages, teachers must provide students with ample opportunities for both structured and unstructured oral production (Saunders & O'Brien, 2006).

However, TWI instructors must make special considerations in structuring student-student interactions for cooperative learning. In a literature review on ELL achievement in immersion settings, Saunders and O'Brien (2006) found that simply requiring students to work cooperatively in groups of ELL and English-proficient students does not, in many cases, result in increased ELL English language development. Experts therefore suggest that teachers structure student-student interactions by designing cooperative tasks carefully to address particular linguistic goals. Some authors even suggest that teachers train the students whom they consider to be positive 'language models'— or those with the highest levels of oral language proficiency

in the target language— in techniques for communicating with language learners without reverting to the other language (Howard et al., 2007).

6. Internal and External Factors on Bilingualism Development

Student success in attaining high levels of functional bilingualism is influenced by a number of situational, familial, and affective factors. These environmental and personal attributes conflate to determine each individual student's level of motivation to learn a second language, or to maintain a home language, in the case of minority language speakers.

School and Community Support

When bilingual programs are implemented in communities where prevailing views towards multilingualism and the use of minority languages in public spheres are negative, the programs are liable to be allocated insufficient resources, untrained or inexperienced teachers, and expectations for program success are likely to be low. Under these conditions, students tend to experience lower levels of academic achievement and language proficiency (Howard et al, 2007; Willig, 1985). TWI instructors and administrators in especially effective programs inform students of multilingual resources in the surrounding community by inviting speakers of both program languages and bilingual mentors to the classroom, and taking field trips that foster the organic use of both program languages, thereby highlighting bilingualism in the community and validating the role of the minority language as a legitimate community language (Howard et al, 2007).

On the school level, Troike (1986) reports that the most successful bilingual programs profess a commitment to bilingualism and the provision of an equal education for students of diverse linguistic backgrounds, rather than as a remedial or temporary program. Further, these

schools take measures to ensure that the program represent an integral piece of the basic school program.

Minority Language Maintenance and Loss

Historical trends of language use in the United States, as evidenced by census data, illustrate a largely consistent pattern of language shift in immigrant communities, in which the language of the home is replaced by English within three generations of residence in the United States. More recent data seems to indicate that this shift is occurring at an even faster rate today: Numerous studies on Spanish-speaking immigrants to the United States have evidenced a preference for English over Spanish, even among recent arrivals (de Jong, 2011). Further, Hakuta and D'Andrea's (1991) survey of 308 high school-aged Mexican students illustrated that adolescent first-generation Mexican immigrant children prefer English within a few years of arriving in the United States. A number of linguistic, cultural, and sociopolitical factors contribute to patterns of language maintenance and loss in immigrant communities over time.

Linguistically, languages with standardized written forms have historically withstood trends of generational language shift towards English use with a greater degree of success than those with no standardized orthography. Moreover, languages utilizing the Latin alphabet are more likely to be maintained and/or learned as second languages. Finally, languages with international status are more readily maintained than those of minor international importance.

The presence of mother tongue community institutions such as schools, churches and arts organizations favors language maintenance, as does the existence of religious and cultural ceremonies conducted in the mother tongue. Moreover, minority languages are more likely to be

maintained when members of a language community share an emotional attachment to their mother tongue, considering it an integral piece of ethnic or cultural identity.

Sociopolitical and demographic factors condoning language maintenance include: large numbers of speakers living in a concentrated area, continuing flows of immigration, proximity and/or high rate of return to the homeland, as well as low levels of socioeconomic mobility and education (Conklin & Lourie, 1983).

Current tendencies toward language attrition and loss in immigrant communities residing in the United States constitute an issue of great relevance to dual language programs such as TWI, as they underscore the inherent difficulties in developing and maintaining proficiency in non-dominant languages.

Parental Influence

The involvement of parents in their children's education, whether or not it involves participation at school, has been shown to increase academic achievement. Schools incorporating a variety of home-school collaboration activities have shown to produce heightened student interest in schoolwork as well as improved achievement and behavior (Howard et al, 2007).

In TWI programs in particular, parents play an instrumental role in developing students' home and second language competencies as well as promoting positive views towards bilingualism. Activities such as reading to children and listening to children read represent two simple means by which parents can foster biliteracy skills and improve academic achievement in bilingual students (Brisk, 1998; Howard et al, 2007).

Many parents of immigrant children endeavor to use English in the home, often in spite of their own serious shortcomings in English proficiency, believing that it will facilitate their children's acquisition of English and support academic achievement (de Jong, 2011). Nonetheless, as a result of the link between strong native language skills and second language acquisition and academic achievement, a switch to English in the home is likely to result in lower levels of academic achievement (Ambert, 1988). In fact, Soto (1993) found that parents of high-achieving Puerto Rican students used Spanish almost exclusively in the home, while lower-achieving students were usually raised in mixed-language settings.

However well-intentioned immigrant parents may be in promoting English use in the home, Brisk (1998) points out that failing to develop children's native language risks grave consequences in that, "Affective, linguistic and cognitive development become vulnerable to neglect because parents dismiss interaction in the native language as irrelevant but cannot provide rich interaction in English" (p. 63). Thus, as children experience language attrition and eventually lose the capacity to speak in their parents' language, limitations on the parents' English ability often restrict parent-child interactions to simple discussions of day-to-day affairs. In his autobiography, Rodriguez (1982) describes the dissolution of familial ties he experienced after his parents encouraged him and his siblings to use English exclusively in the home, resulting in a gradual loss of proficiency in his native Spanish:

Sentences needed to be spoken slowly when a child addressed his mother or father. (Often the parents wouldn't understand.) The child would need to repeat himself. (Still the parents misunderstood.) The young voice, frustrated, would end up saying, "Never mind"—the subject was closed. (p. 23)

Wong Fillmore's (1991) description of the far-reaching repercussions of language loss in young children, included in her article summarizing the detrimental effects of subtractive bilingualism in immigrant students, is especially poignant:

What is lost is no less than the means by which parents socialize their children: When parents are unable to talk to their children, they cannot easily convey to them their values, beliefs, understandings, or wisdom about how to cope with their experiences. They cannot teach them about the meaning of work, or about personal responsibility, or what it means to be a moral or ethical person... When parents lose the means for socializing and influencing their children, rifts develop and families lose the intimacy that comes from shared beliefs and understanding. (p. 343)

For these reasons, successful TWI programs must play an active role in educating parents on how to best raise a bilingual child, providing them with instruction and support services, with special attention paid to home literacy practices in minority language-speaking households.

To facilitate parent involvement in their child's bilingual education, experts on dual education encourage schools housing TWI programs to make a concerted effort to create a warm and welcoming environment for the parents of linguistically diverse students. In this regard, particularly effective TWI programs include a majority of office staff members that are cross-culturally aware as well as fully bilingual in both program languages. Furthermore, announcements and other correspondence from the school to families of bilingual students should be delivered in both program languages.

Individual Factors

Researchers in bilingual education and second language acquisition have noted that differences in individual students' personal characteristics lead to disparate outcomes among

students of similar linguistic, cultural, and socioeconomic backgrounds (Wong Fillmore 1979; Brisk, 1998).

Motivation has been established as a fundamental precursor of success in learning concepts and skills generally, and several authors have identified personal motivation as especially pertinent to student success in the second language classroom (Alderman, 1999; Gardner, 1985). Dörnyei and Csizér (1998) point out that, since the process of learning a second language is both energy and time intensive, even the most adept students are unlikely to develop L2 proficiency if they are unmotivated to do so; conversely, they assert, highly motivated students are able to overcome potentially adverse learning conditions to attain at least a working knowledge L2. In their 1998 study of student motivation in the L2 classroom, Dörnyei and Csizér examined the affective attributes that contribute to students' motivation, such as self-confidence in their communicative abilities and anxiety when producing in the L2. In the conclusions and implications drawn from this study, Dörnyei and Csizér suggested that second language teachers make concerted efforts to decrease student apprehensions in the classroom, thereby raising their motivation to use and learn the language.

Similarly, in her research investigating the influence of individual student differences on the second language acquisition process, Wong Fillmore (1979) distinguished between daring and cautious second language learners, noting that daring learners actively seek out speakers of the target language for speaking practice and to address concerns. This technique expedites these more extraverted learners' oral language acquisition, and can serve to improve their second language literacy acquisition as well, though likely to a lesser extent.

Importantly, as Brisk (1998) points out, affective factors such as intrinsic motivation not only impact students' acquisition of a second language, but also, in the case of language minority speakers, the retention of home language. The aforementioned Hakuta and D'Andrea (1991) study underscored the social and environmental pressures that immigrant children to the U.S. experience condoning the use of English. In light of these pressures, immigrant children are unlikely to maintain full proficiency in their home language in the absence of internal or external motivational sources.

Part 2: Two-Way Immersion in Practice - Presentation and Analysis of Data

7. Research Context and Methods

Research Motivation

Having established, through literature review, the theories of bilingualism and second language acquisition that underly the two-way instruction, as well as the frameworks necessary for the model to function to its fullest potential, I undertook classroom observations and teacher interviews out of a desire to gain insight into the practical reality of the two-way model as it was implemented in an actual TWI program. Specifically, I hoped to ascertain the instructional practices and approaches that the teachers routinely utilized in their classrooms, as well as the visions of bilingualism and second language learning that motivated them.

Ultimately, my investigation centered around the following research questions:

- (1) How did observed patterns in student language in each classroom compare to each other and did these patterns reflect the ideal for student language use in TWI programs as described in the literature?
- (2) How did observed instructional techniques in each classroom compare to each other and to best practices for TWI instruction as described in the literature?
- (3) How could program-level factors have affected or accounted for patterns in observed instruction and student participation?

Data Collection Methods

The present study took place at the Davis Elementary School, one of four public elementary schools offering first through fourth grade in a small city in Eastern Massachusetts, which housed a Spanish-English TWI program known as “Mundos.” The data presented in this study was collected over a span of six months in the two paired first grade Mundos classrooms at the Davis School through a combination of classroom observations and teacher interviews. As the program provided only one pair of Mundos classrooms per grade, with one classroom for each program language, the observations and interviews conducted for the present study represented the entirety of the Mundos first grade instruction.

The observations were divided into two rounds: the first lasted for one month and took place at the beginning of the school year, from late September to late October; the second lasted for two weeks and occurred between late January and early February. While in the classroom, I followed a single group of students as they alternated classrooms and languages each week. Both teachers allowed me unlimited access to their interactions with students, both in whole- and small-group contexts as well as their meetings with individual students. During the observations, I audio-recorded the entire day, and took field notes as well as photographs of pedagogical materials in the classroom, as appropriate. I later transcribed the segments of the audio recordings corresponding to whole-group reading activities, amounting to more than 300 pages of transcribed material. As an English-Spanish bilingual, I understood all classroom interactions and translated any Spanish-language excerpts of the class transcriptions or teacher interviews appearing in the present study myself.

Additionally, I interviewed the program's two first grade teachers at the time of the study in a joint interview prior to the start of the first round of observations, and again individually after the second round of observations had finished. In the initial interview, questioning centered around what the teachers perceive to be the greatest challenges they encounter as bilingual educators, and their strategies for addressing the instructional needs of multilingual students. Questions in the second interview referenced specific teaching practices observed in each classroom, prompting the teachers to describe the motivations underlying each approach. Finally, I interviewed one of the founders of the program who served as its first grade English teacher for twelve years, to ascertain the origins and guiding principles of the program. Like the classroom observations, these interviews were audio recorded and subsequently transcribed.

Data Analysis Methods

In analyzing the classroom observation data, I compared two full days of whole-group reading activities from the first and second round of observations, including: pre- and post-reading meetings and discussions, read alouds, and read togethers (the structure and content of these activities will be described in further detail in the following chapter), paying particular attention to patterns in student participation and teacher questioning. The decision to focus on whole-group reading activities was motivated by a number of factors. First, whole-group reading activities constitute what Heath (1983) designates as literacy events, or repetitive, rule-governed social interactions in which conversation centers around a text. Heath further contends that the rules governing these events “regulate the type and amount of talk about what is written, and define ways in which oral language reinforces, denies, extends, or sets aside the written material”

(p. 386). The realization of each individual literacy event, however, differs according to such factors as teacher goals and cultural values. As such, read alouds and read togethers adhere to similar conventions of discourse in the English and Spanish classrooms, thus allowing for a direct comparison of teacher questions and student responses across program languages. Second, the teacher-mediated dialogues of read alouds, read togethers, and the discussions that precede and follow them provide students with a forum in which to present extended, public answers using academic language, in both a structured and unstructured capacity. As such, these activities reflect teacher goals for student language use, as they allow instructors to facilitate the student language modeling that is of such fundamental importance to the TWI model.

For both sets of observations, I chose to analyze the two days from each class that yielded the lengthiest discussions, as determined by the total number of utterances, and for which I had audio recorded the entire day. I opted to analyze the classes with the most fruitful discussions as they, in theory, represent the discussions that provide the most thorough representation of the students' linguistic capacities in each language; whereas many of the first round read alouds were liable to be truncated for pragmatic reasons—the first round classes' early emphasis on phonics review meant that read alouds were often left for the last few minutes of the reading block, with teachers abruptly terminating student discussions or skipping pre- and post- reading discussions entirely—the discussions selected for analysis represent those that were least affected by such practical constraints.

In the following, I will present the field data, structuring the chapters similarly to the earlier literature review. I will begin with a general description of the program and then continue

to investigate trends in student language use, observed instruction, teacher goals and approaches, and, finally, an overview of student outcomes in the program.

8. Program and Classroom Features

The Mundos TWI Program

The Davis School's "Mundos" Spanish-English two-way immersion program represented a strand within a school in which the remainder of the classrooms were monolingual, English classes. The program ran from first through fourth grade with an optional kindergarten Mundos after-school program, in which students were provided with basic instruction in Spanish phonics. In promotional materials, the Mundos program cited becoming fluent in both English and Spanish, reaching high academic standards, and developing an appreciation of other people and cultures as its primary aims.

The Mundos bilingual program dates back to the late 1980's, initiated by a contingent of Davis school teachers and administrators who were intrigued by the potential of the TWI model to raise the scholastic achievement of Spanish-speaking students, especially those who lacked English proficiency. In their view, the model was pedagogically ideal for a school of the city's particular cultural demographics as it would allow the school's extensive population of Spanish-speaking students to maintain and develop their native language in an academic capacity as well as increase these students' understanding of curricular content in English, while simultaneously offering the opportunity for monolingual, English-speaking students to learn the language and culture of their Spanish-speaking peers.

However, the program underwent a significant shift in emphasis after the ratification of California's Unz Initiative in 1998, which effectively barred the use of languages other than English in public school classrooms. While the initiative, also known as Proposition 227, only bore legislative weight in California, its passing caused educational administrators and

policymakers around the country to call into question their own states' and districts' policies towards the education of ELLs. Following suit, in 2002, Massachusetts voted in favor of Question 2, a ballot initiative that replaced all of the state's transitional bilingual programs with sheltered English immersion (Owens, 2010).

While Massachusetts never banned bilingual education outright, district administrators decided after the ratification of the Unz Initiative that the Davis school's two-way program should no longer be offered to Spanish speakers with little to no knowledge of English, as, in their opinion, it would counteract the district's aim of teaching ELLs to speak English as efficiently as possible. As such, the school restructured the program to include an entrance examination, thereby ensuring that all of the students entering the program have attained grade-appropriate oral language and literacy benchmarks in English.

Admissions Procedures

Thus, at the time of the present study, students could enter the Mundos program in either kindergarten or first grade, in both cases by an entrance examination of English oral language and literacy skills. In rare cases, wait-listed applicants who are proficient in both Spanish and English could enter into later grades by teacher recommendation if space becomes available. In order to be eligible for the kindergarten Mundos, children must have achieved a satisfactory score on the LAS (Language Assessment Scales) test, a placement exam that evaluates students' speaking and listening comprehension skills in English. Participation in the kindergarten Mundos was not mandatory for admission into first grade Mundos, though all children who were admitted

into the kindergarten Mundos were granted automatic admission into the first grade two-way program.

The school filled the remainder of the first grade class also by entrance examination, admitting those with the highest levels of English proficiency. Students were tested on their knowledge of English phonics using DIBELS (Dynamic Indicators of Basic Early Literacy Skills) tests in addition to the LAS placement exam for speaking and listening skills. Prospective students entering at the first grade or kindergarten level were not tested on their Spanish language ability. In all, between fifty and sixty students were admitted to the first grade Mundos each year, with over ninety students who also received satisfactory test results on the waiting list.

Program Structure

The Mundos program represented a 50:50 model of two-way immersion bilingual education in which students received alternating weeks of instruction in Spanish and English, with a separate teacher and classroom for each language. The fifty to sixty students in each grade were divided into two groups of twenty five to thirty students, which alternated classrooms and languages each week. It was unclear on what basis students were divided into these two groups.

There were a few exceptions to the one language, one week rule: “specials”— or subjects given outside of the students’ primary classrooms such as art, music, gym, and science— which the students received in English in all grades; third and fourth grade math, which students received in English; and third and fourth grade long-term writing projects, which students worked on in a single language for spans of two to three weeks before alternating languages for the following writing assignment.

Further, the program employed a “both languages for everyone” approach to early literacy instruction, emphasizing Spanish and English literacy skills equally throughout all program grades. However, since the kindergarten Mundos was an optional, after-school program, it did not cover the same amount of early literacy instructional material as was covered in the English kindergarten. Moreover, a number of teachers speculated that the students did not enjoy the kindergarten Mundos due to the after-school commitment it required and that, consequently, students did not glean as much knowledge out of the classes as they could have. As such, a majority of Mundos students entered first grade with a significantly greater knowledge base in English early literacy skills than Spanish early literacy skills; further, any English-speaking students that did not participate in the kindergarten Mundos began first grade with no knowledge of Spanish phonics whatsoever. As a result, the program’s approach to early literacy instruction was effectively a sequential model, with English serving as the language of initial literacy instruction for all students, regardless of language background.

The broad outline of a typical day of instruction for a first grade Mundos student was determined by the school administration. Of the six hour day, extending from 8:00 am to 2:00 pm, both teachers were obligated to allot two hours for reading instruction, one hour and thirty minutes for math, and one hour for writing workshop. Students spent a combined one hour and thirty minutes each day in specials (forty-five minutes), lunch (thirty minutes) and recess (fifteen minutes). This schedule was identical across both languages.

With regard to literacy instruction, the school further stipulated that teachers utilize reading activities that fit into each of three categories, making sure to incorporate at least one activity from each category per day: read to grow, in which students read or listen to reading at

slightly above grade level in a whole- or small-group setting; read together, in which students read or listen to reading at grade level in a whole-group setting; and read independently, in which students read or listen to reading alone or with a partner at their individual levels. Read to grow activities typically involved small groups of students practicing similar comprehension or fluency strategies with the teacher or a paraprofessional assistant during independent reading time.

Beyond these requirements, the teachers were largely at liberty to structure literacy activities as they saw fit. Further, the teachers were allowed to select the particular texts they wished to utilize in whole- and small-group literacy activities. In both classrooms, the two-hour-long reading block was divided into three types of activities: phonics instruction and review; independent, paired, and/or small group reading activities; and whole-group reading activities.

Whole group reading activities proceeded in largely similar fashion across the two classrooms. Both classes drew upon read alouds, in which the teacher read a text aloud to the class, and read togethers, in which the teacher and students read a text aloud in unison. Furthermore, both teachers scaffolded these whole-group activities with pre- and post-reading discussions of the text, as well as guiding questions throughout reading. In the Spanish and English classrooms, students completed these activities while seated in rows on the floor facing the teacher, who sat in a chair or stool at the front of the class.

Curriculum and Assessment

The Davis school employed a consistent set of content area standards— which were aligned with the federally-recognized Common Core curriculum— throughout the entire school,

including across all Mundos classrooms, regardless of language of instruction. Nonetheless, students were only assessed on their ability to meet curriculum standards in the English class. While students were formally tested three to four times a year in math, writing, and reading comprehension in English, assessment in the Spanish classroom consisted solely of DIBELS and a few short writing prompts. These informal Spanish assessments were purely internal to the program, and served chiefly to inform students' future teachers of their Spanish language ability.

Teacher Selection and Training

The process of selecting and training teachers changed significantly since the program's inception. In the earlier years of the program, teachers explicitly chose to be in a bilingual classroom, and the school offered them paid opportunities to attend trainings designed specifically for educators of multilingual students. At these workshops, paired Spanish and English teachers were required to discuss and coordinate classroom expectations and procedures, such that instruction would be mirrored exactly across program classrooms.

At the time of the present study, teachers who applied to work at the school were assigned by the principal to work in a monolingual or bilingual classroom. It was not immediately evident on what basis these assignments were made, nor was it clear for what reason the school elected to modify the program's teacher selection procedures. Further, teachers that were appointed to the Mundos program did not receive any training to work with bilingual students, though they were expected to confer with their partner teacher periodically regarding issues of curriculum mapping and the presentation of content area material.

In what follows, I will introduce the particular teachers of the observed Mundos classrooms, identifying relevant details of their prior professional and educational experiences, as well as their linguistic backgrounds. This section will be succeeded by an overview of the students' linguistic backgrounds.

Teacher Profiles

The program's first grade English teacher during the period in which research for the present study took place, Grace Myers, was a monolingual English speaker. Though she had no formal training in bilingual education, she had accrued more than six years of experience working in classrooms with significant ELL populations, including two years in the Mundos program. Ms. Myers had taught at the Davis school for five years at the start of the study, including three years in a mainstream third grade classroom— which she taught jointly with an English as a second language (ESL) specialist—, one year as the English teacher in the third grade Mundos classroom, and one year as the English teacher in the first grade Mundos classroom. Prior to working at the Davis school, Ms. Myers taught preschool for a year and a half at a private institution in which more than half of the students spoke Hebrew at home to varying degrees, many of whom were dominant in the language and some of whom spoke no English at all at the start of the school year. She also cited some graduate-level coursework dealing with issues in ELL education.

The first grade Spanish teacher for the Mundos program, María Lera, possessed extensive experience in teaching minority languages (having taught both English in Spain and Spanish in the United States) at all levels, with five years of professional experience in bilingual education.

Ms. Lera hailed from the South of Spain, where she worked for twenty-two years in public schools as an English as a foreign language instructor at the elementary, middle, and high school levels as well as a general education teacher at the elementary level. She also served as a program officer for the Spanish Ministry of Education, helping to design and oversee international exchange programs for Spanish high school students. In 2005, she arrived in the United States on a grant from the Spanish Ministry of Education, for which she was placed in the Mundos program at the middle school level, an extension of the TWI program that the district created upon her arrival. She served as the English and Spanish teacher for the middle school Mundos class for three years, until the program extension was discontinued due to lack of funding. After a brief stay in Spain, she returned to the U.S. on a similar grant, at which point she taught Spanish as a foreign language for one year before returning to the Mundos program, this time at the first grade level. At the start of the present study, she had served as the program's first grade Spanish teacher for two years.

Language Backgrounds of the Students

Of the twenty seven students in the observed bilingual class, seventeen were reported to be Spanish-dominant, eight were reported to be English-dominant, and two were reported to be speakers of other languages (Arabic and Burmese, respectively). The Davis School gathered this data through surveys issued to the parents and guardians of incoming Mundos students inquiring about the language primarily spoken in the students' homes.

In addition to this parent-reported data, the teachers related additional information concerning the students' language proficiencies which they had ascertained through interactions

with families as well as their own observations of the students' language preferences and competencies during class. Among the students listed as English-dominant, the teachers expressed that at least five of them had at least one Spanish-speaking parent and, accordingly, varying degrees of conversational Spanish proficiency. Thus, a total of only five students in the program had no exposure to Spanish prior to kindergarten (three of the English-dominant students and the two speakers of other languages). Further, in the class described in the present study, all of the students had participated in the kindergarten *Mundos* except for one, a monolingual English speaker with no Latino background. As such, this student represented the only program participant in the observed classrooms without any previous exposure to Spanish. Of the students officially listed as Spanish-dominant, the teachers speculated that at least five of them were stronger in English than Spanish.

Furthermore, due to the particular demographics of the school district in which the *Mundos* program was located, the fifty to sixty highest-performing students on the program's entrance exam of English language skills inevitably included some English language learners. The teachers estimated that four or five of the students in the observed class were ELL.

A Note on Transcriptions

All excerpted portions of transcribed material will observe the format outlined below:

ML: Bueno, ayer estábamos viendo ¿qué- qué tipo de- qué tipo de lectura? ¿Quién me puede explicar qué tipo de reading o que tipo de literatura estábamos viendo? ¿A ver, Clara? *OK, yesterday we were looking at what- what genre of reading? Who can tell me what type of reading or what type of literature we were looking at? Let's see, Clara?*

Clara (Spanish): Um [pausa] ficción real. *Um [pause] realistic fiction.*

ML: ¡Ficción real, muy bien! ¿Y qué era la ficción real? ¿Quién me puede explicar lo que era eso de la ficción real? A ver, Sofía? *Realistic fiction, very good! And what was realistic fiction? Who can explain to me what realistic fiction is? Let's see, Sofía?*

Sofia (Spanish): Algo que puede pasar. *Something that can happen.*

ML: ¡Algo que puede pasar! Y ¿dónde lo vemos si es algo que puede pasar? ¿Lo vemos en la tele? *Something that can happen! And where do we see if it's something that can happen? Do we see it on the TV?*

Estudiantes (la mitad): No. *No.*

The teachers' initials (GM for Grace Myers and ML for María Lera) and students' names will appear in bold. For responses offered by individual students, the students' names will be followed by their reported language of dominance in parenthesis, while choral responses will be succeeded by an approximation of the number of students responding in parenthesis. In the case of Spanish class transcriptions, an English translation will appear in italics immediately adjacent to each utterance. Any additional information concerning the manner in which the utterance was produced will appear in square brackets.

9. Observed Student Participation and Language Use

In my analysis of the data obtained from the Mundos classroom observations, I first investigated overall student participation during the two observation periods, looking at both the frequency of participation-- as defined by the number of total target language utterances produced by each student over two days of whole-group reading instruction— as well as the length of student responses in words per utterance. In so doing, I intended to compare student language use in English and in Spanish, as well as identify any changes in language use that transpired as the year progressed. As such, this investigation of student participation addressed my first research question, which aimed to ascertain whether patterns of observed student language use in the Mundos program were equal across classrooms, as well as if they aligned with the ideal for student language use in TWI programs as described in the literature.

Target Language Use

As tables one and two illustrate, the total number of responses received, total number of students participating, and the average number of words per response were higher in the English class than in the Spanish class throughout both sets of observations. Moreover, total participation increased in both classrooms from the first set of observations to the second, though the margin of increase was significantly higher in Spanish class (204%) than in the English class (75%). Further, while the total number of students participating in whole-group discussions over two days of reading instruction remained constant in English from the first to the second set of observations, more students participated on a consistent basis in the second round, with a greater number of students offering responses on both days. In the Spanish class, both the total number

of students participating as well as the number of students participating on both days of instruction increased. It should be noted that calculations of Spanish class participation rates only include utterances produced entirely in the target language, (i.e. the number of responses cited for each student under ‘S1’ and ‘S2,’ for example, includes only responses produced entirely in Spanish, and does not include instances of language mixing, or responses given entirely in English).

Looking at the participation rates for individual students, roughly the same number of students increased in frequency of participation in both English and Spanish (63% and 67%, respectively), though the margin of improvement for individual students was often significantly larger in Spanish. For example, Marisol, Veronica, and Clara— three Spanish-dominant students who did not offer public responses in Spanish in the first round of observations— had become regular participators in whole-group discussions by the second set of observations. Notably, there were four students who did not offer a single public, oral response during the four Spanish classes analyzed for the present investigation of student language use. Conversely, every student participated orally in whole-class discussions in the analyzed English classes.

With regard to response length, student utterances were marginally longer in English than in Spanish across both observation periods. Further, while average response length increased in the English classroom from the first set of observations to the second, average length response remained constant in the Spanish classroom between observation periods..

On the whole, these findings indicate that oral student participation was consistently wider and more robust in the English classroom than in the Spanish classroom, in that a greater

number of students participated regularly and produced lengthier utterances in English class throughout both observation periods.

Table 1

<i>Frequency of Participation</i>				
<u>Student</u>	<u>E 1</u>	<u>E 2</u>	<u>S 1</u>	<u>S 2</u>
Whole Group	31	57	14	21
Alberto	1	9	-	4
Anna	6	12	7	22
Brandon	1	1	1	-
Caterina	1	7	3	-
Chloe	-	4	-	1
Clara	1	7	-	12
David	4	1	1	5
Ellen	1	9	-	-
Eva	3	3	3	9
Ginny	4	5	-	-
James	8	8	3	10
Jesse	3	3	-	-
Jessica	2	7	-	-
Jorge	5	4	6	8
Josue	2	5	-	5
Juan	1	2	1	-
Lara	3	4	4	15
Lisa	5	10	1	3
Maha	7	-	-	2
María	2	1	-	2
Marisol	1	3	-	11
Roger	5	7	-	-
Sergio	1	2	-	3
Silvia	4	4	4	1
Sofía	1	1	1	10
Veronica	-	2	-	15
Yessica	3	4	1	2
Totals	106	182	50	161

Table 2

<i>Length of Responses</i>				
<u>Student</u>	<u>E 1</u>	<u>E 2</u>	<u>S 1</u>	<u>S 2</u>
Whole Group	1	1	1	1
Alberto	3	4	-	11
Anna	6	7	6	12
Brandon	1	3	2	-
Caterina	21	8	9	-
Chloe	-	12	-	1
Clara	13	20	-	12
David	8	36	6	5
Ellen	10	10	-	-
Eva	19	18	9	10
Ginny	6	13	-	-
James	9	25	3	8
Jesse	5	4	-	-
Jessica	7	18	-	-
Jorge	15	7	11	7
Josue	2	10	-	6
Juan	11	10	2	-
Lara	14	9	8	8
Lisa	13	17	2	2
Maha	4	-	-	2
María	16	5	-	2
Marisol	14	5	-	6
Roger	9	10	-	-
Sergio	1	5	-	2
Silvia	7	6	3	4
Sofía	2	26	8	3
Veronica	-	4	-	4
Yessica	3	6	8	5
Averages	9	11	7	7

Note: E1 = English classroom, first observation period; E2 = English classroom, second observation period; S1 = Spanish classroom, first observation period; S2 = Spanish classroom, second observation period.

Non-Target Language Use

As was mentioned previously, student speech utterances using language mixing and those that were produced entirely in the non-target language were not included in the student participation data presented in tables one and two. Thus, to continue my investigation into student language use patterns, I next investigated instances of student code switching — which, for the purposes of the present study, refers to any instance of non-target language use, encompassing both changes in language within utterances, as well as responses given entirely in the native language, including translations requested by the teacher — to measure the prevalence of the non-target language in each classroom and identify the contexts in which students drew upon the partner language in each classroom.

Looking at observed instances of code switching, one finds that there were no occurrences of student Spanish use in the English classroom during whole-group reading instruction. By contrast, in Spanish class, students offered answers that were partially or entirely in English, on average, once every five minutes during the first set of observations (with five documented instances of code switching over twenty-four minutes of instruction). During the second round of observations, students were four times less likely to use English in Spanish whole-group reading discussions than in the first round, producing an average of one English response every twenty minutes (with three documented instances of code switching over sixty-one minutes of instruction). In these cases, students of all language backgrounds would generally begin their responses in Spanish, before switching to English midway through the utterance, such as the following response Clara produced summarizing a page of text during a read aloud:

Clara (Spanish): La- La mamá, um, she turned off the light first... *The- the mom, um, she turned off the light first...*

There were no documented instances in which students initiated an utterance in English before switching into Spanish in the Spanish classroom

Alternatively, some students would opt to state their answers entirely in English. In the following example, Ellen, an English speaker with no Latino background, offered an English response in the context of a conversation about means of transportation which, until that point, had been conducted entirely in Spanish:

Ellen (English): Our car.

ML: Un coche, o un carro. Car, carro, fíjate que sencillo. Muy bien. *A car. Car, carro, look at how easy that is. Very good.*

Occasionally, students would produce responses entirely in English during Spanish class in order to provide a simple translation at the request of the teacher. An example of this phenomenon will be provided in the following chapter, which deals with observed instructional practices.

Notably, occurrences of code switching in mixed English and Spanish utterances were universally intrasentential, with students generally attempting to produce only one or two Spanish words before switching into English. By some definitions of the term, these utterances would not be considered instances of code switching, but rather lapses in linguistic competence that compelled the students to revert to a language in which they were more proficient. While the specific factors influencing a multilingual individual's decision to code switch are myriad, the

phenomenon can be essentially understood as being motivated by the individual's implicit preferences for using a certain language or language variety in specific contexts, which may or may not be influenced by issues of linguistic proficiency.

Unstructured Language Use

Although this observation falls somewhat outside of the scope of the whole-group reading activities investigation, it is worth considering that patterns in social use of the target language differed between the two classrooms. While students conversed freely with their peers in both academic and social contexts in the English classroom, students rarely spoke in Spanish amongst themselves in the Spanish classroom, even when explicitly instructed to do so.

Indeed, the students' tendency to use English in unstructured contexts extended beyond the TWI classrooms, as children at the school in general seldom spoke in Spanish to each other or with Spanish-speaking school employees at lunch, recess, or in the hallways. Due to the high percentage of students hailing from Spanish-speaking households throughout the school, oral intercom announcements throughout the school day were delivered in both Spanish and English. Furthermore, all correspondences from the Davis school to the families of its students were issued in both Spanish and English, as many of the students' parents, guardians, and other older relatives were limited in their English proficiency. As an additional bilingual resource at the school, the majority of administrative employees at the Davis School were fully proficient in Spanish and English. Even the school's principal, a native English speaker, possessed a high enough level of proficiency in Spanish to hold sustained, professional conversations with Spanish-speaking teachers, administrative staff, and parents. Nonetheless, despite the fact that

the school did not actively promote the use of English during all-school activities, there were no observed instances of student-student interactions in Spanish outside of the classroom, and only a few instances of teacher-student Spanish conversations, all of which were initiated by adults.

10. Observed Instruction

The second piece of my analysis of the Mundos classroom data centered around trends in observed instructional practices, and was aimed at illustrating the similarities and differences in instruction between the two program classrooms. As such, this piece addresses my second research question, which not only intended to compare and contrast instruction in the two program classrooms against each other, but also against the recommendations set forth in the literature on the ideal implementation of the TWI model. The following chapter outlines a number of features of the instruction, as presented in whole-group reading activities, observed in each classroom and each observation period.

Time Allotted to Whole-Group Reading Activities

Whole-group reading activities—including read alouds, read togethers, as well as the pre- and post-reading discussions surrounding these activities—represented a more prominent component of literacy instruction in the English class than in the Spanish class, as Ms. Myers consistently allotted a greater amount of instructional time to these activities. In the English classroom, whole group reading activities lasted an average of twenty four minutes per class in the first set of observations, while they lasted half this amount in the Spanish class, at an average twelve minutes per class. Notably, instructional time apportioned to these activities increased across both classrooms over time; in the second set of observations, Ms. Myers and Ms. Lera allotted roughly twice the amount of instructional time to such activities, at an average of forty two and thirty one minutes per class, respectively.

Question Types

I next examined the nature of the questions each instructor utilized during whole-group discussions of texts in order to determine the various communicative tasks teachers expected students to complete during these discussions. Questioning patterns reflect instructor goals for student conversation and, accordingly, shape student language use during class discussions. The categories of questions utilized in the present discussion were devised by the researcher with reference to Bloom's (1956) taxonomy of learning objectives, though the particular terminology used in the present study was chosen as it best met the needs of this particular discussion.

Table 3

Question Types

<u>Type</u>	<u>E 1</u>	<u>E 2</u>	<u>S 1</u>	<u>S 2</u>
Targeted Comprehension Check	26	52	23	31
Request for Summary	2	10	10	35
Making Inferences	21	22	4	8
Providing Evidence from Text or Pictures	10	9	-	-
Making Predictions	9	2	2	-
Asking Questions	7	-	-	-
Personal Opinion / Experience	6	14	-	2
Strategies	9	5	5	-
Sentence Starters	-	16	-	5
Word Definition	7	7	8	23
Text Conventions	-	44	-	53
Totals	97	181	52	157

Note: E1 = English classroom, first observation period; E2 = English classroom, second observation period; S1 = Spanish classroom, first observation period; S2 = Spanish classroom, second observation period.

As displayed in table three, teacher questioning in the English classroom drew upon a relatively wide variety of questions prompting students to engage in several processes

characteristic of strategic reading, such as asking questions (e.g. “Does anyone have a question that they’re wondering?”), making predictions (e.g. “Any predictions about what is going to happen next?”), considering one’s prior knowledge and personal experience relating to the text’s subject matter and content (e.g. “Wilbur thinks that is a delicious meal. Thumbs up if you agree with him.”), as well as making inferences and analyzing story events (e.g. “Do you think that these things are making her feel better?”; “did anyone notice a pattern in what’s happening in the story?”). Additionally, Ms. Myers encouraged the students to provide evidence from the text or illustrations in support of an argument or inference (e.g. “Does anyone see a clue that might help us find out who Oma and Opa are?”). These prompts were often accompanied by explicit discussions of reading strategies, during which the teacher requested that students select the appropriate strategy used to resolve hypothetical errors, which she would often model while reading (e.g. “So if we don’t remember, what do we have to do?”). Similarly, Ms. Myers was more likely to engage in explicit discussions of appropriate sentence starters for various forms of participation (e.g. “Who has another way of- another sentence starter that we might use to tell our opinion?”).

By contrast, in the Spanish classroom, questioning primarily invoked surface-level understandings of the text, with few strategy-oriented questions; discussions revolved principally around the students’ immediate comprehension of events depicted in the text, as well as the linguistic content of the text itself. As such, Ms. Lera utilized more than double the total number of summary requests (e.g. “¿Qué pasa en primer lugar?” “*What happens first?*”) than were observed in the English classroom across both sets of observations, as well a comparable amount of targeted comprehension checks, requiring students to recall specific information conveyed in

the text (e.g. “¿Qué es lo que van a hacer hoy?” “*What are they going to do today?*”), notwithstanding the lesser amount of instructional time allotted to Spanish whole group reading activities. Discussions centered around the definitions and practical applications of terms encountered in the text constituted a primary feature of Spanish whole-group reading activities across both observation periods (e.g. “¿Qué será una cochera?” “*What could a garage be?*”). At contrast with Ms. Myers, Ms. Lera would often engage in extended conversations around encountered vocabulary words, especially in the second round of observations, when she was apt to ask students numerous follow-up questions invoking their prior knowledge of an encountered word (e.g. “¿Qué guardamos en la cochera?” “*What do we keep in the garage?*”).

For both teachers, discussions focusing on genres of literature, types of writing, and other text conventions represented a central feature of whole-group reading discussions in the second round of observations, while they were not mentioned in the first round.

Reading Strategies

While table three indicates instances of teacher questioning eliciting reading strategies or qualities of strategies as responses, it does not include mentions of strategies in teacher talk or teacher modeling of strategy implementation. In both rounds of observations, references to and modeling of strategies were significantly more frequent in the English classroom— with thirty-four total allusions to strategies in the first set of observations and seven in the second— than the Spanish classroom, where Ms. Lera explicitly alluded to strategies only four times in the first set of observations, and did not mention them in the second. In both classrooms, the prominence of

reading strategies in both teacher questioning and other forms of teacher talk decreased from the first to the second observation period.

In teaching reading strategies, Ms. Myers employed the CAFE methodology. This methodology encourages teachers to provide students with explicit instruction identifying and describing approaches utilized by effective readers (e.g. backing up and re-reading, checking for understanding, or making predictions while reading). The strategies fall under four categories, each of which addresses a distinct aspect of reading competence: Comprehension (I understand what I read), Accuracy (I can read all the words), Fluency (I can read accurately, with expression, and understand what I read), and Expanding Vocabulary (I know, find, and use interesting words). Teachers then instruct students to identify gaps in their own reading abilities, corresponding to one of the four aforementioned categories, then select an appropriate strategy to remediate these issues. Further, under the CAFE system, teachers are advised to create a “CAFE Menu Board” in a prominent location in the classroom listing each of the strategies as they are addressed in class discussions (The Daily CAFE, 2013).

Accordingly, Ms. Myers devoted a large portion of instructional time to describing these strategies, verbally or physically referencing the communal “CAFE Menu Board” at almost every mention of a strategy. Furthermore, she frequently provided students with detailed explanations of why they were discussing each specific strategy (e.g. “Good readers ask questions before their reading and during their reading, and also sometimes even after reading a book. Because it helps keeps- keeping their brain busy and thinking about what’s happening in the story and that’s- that helps you understand.”).

Ms. Lera, conversely, opted for a more implicit style of instruction. While she often instructed students in similar approaches to reading as in the English classroom, she did not utilize the CAFE terminology— which is, in fact, available in Spanish (The Daily CAFE, 2013) — to name or categorize these strategies as such.

Notably, students occasionally transferred their understandings of CAFE reading strategies acquired in the English class to Spanish reading in the course of whole-group reading activities, for instance:

ML: So, si no lo hemos entendido, qué tenemos que volver a hacer? *So, if we didn't understand, what do we have to go back and do?*

Ellen (English): Back up and reread.

ML: So, l-

Anna (Spanish): Tienes que volver atrás. *You have to go back.*

ML: Volver atrás y vuelves a leerlo. Vamos a volver a leerlo. *Go back and you read it again. Let's read it again.*

In this example, Ellen specifically cites a strategy acquired in English class, which Anna subsequently attempts to translate into Spanish.

Forms of Discourse

An analysis of the forms of discourse employed in each classroom— including an investigation into teacher utterance length, combined with information regarding the frequency of student-teacher and student-student dialogues in the course of whole-group reading activities

— revealed that students were consistently offered greater opportunities for oral production in the English classroom than in the Spanish classroom.

Throughout both observation periods, the English and the Spanish teacher drew upon the reciprocal interaction method to employ teacher-student and teacher-class dialogues while conducting whole-group reading activities. In addition to these teacher-directed lines of questioning, Ms. Myers incorporated brief, paired student conversations into whole-group discussions of texts (e.g. “You are going to take turns with your buddy, sitting knee to knee, and telling facts...What’s a fact that you know about apples?”). Such student-student dialogues were not present in the Spanish classroom in the course of the first set of observations, though Ms. Lera made limited use of paired student conversations in the context of whole-group discussions of texts later in the year.

Furthermore, patterns in teacher utterance length indicated that, while the average length of a teacher utterance was comparatively uniform throughout observation periods and across languages—twenty-nine and twenty-five words per turn in English in the first and second sets of observations, as compared to twenty-nine and twenty-two words per turn in Spanish— the maximum number of words per teacher utterance was appreciably greater in Spanish at 675 and 779 words per utterance, as opposed to 175 and 207 in the English class. Calculations of teacher utterance length did not include text recited aloud to the class, nor did they include disciplinary comments or directives aimed at individual students.

These findings illustrate that, though both teachers drew upon a reciprocal interaction model of teaching, instruction in the Spanish classroom was more teacher-centered than in the English classroom, where oral participation was distributed more evenly.

Rendering Content Comprehensible

In looking at the content of the teacher utterances in each classroom, it was observed that both Ms. Myers and Ms. Lera employed sheltering techniques in order to render input more comprehensible for students. This topic was identified in literature on TWI as well as second language acquisition in general as paramount for second language learners' linguistic development, and indicated an awareness on the part of both teachers of their students' emerging second language faculties.

In the context of whole group reading activities, the teachers utilized these sheltering techniques to elucidate upon instruction given during pre- and post- reading discussions in addition to the content of the stories themselves. These techniques included: the use of visual aids such as pictures and gestures, brief explanations of terms and concepts by the teacher in the target language, brief explanations of terms and concepts by the student in the target language, student modeling of instruction, as well as periodic verbal and nonverbal comprehension checks.

It was further observed that the teachers occasionally — approximately twice per class— reminded students explicitly of material covered previously in the partner classroom. This technique served to increase the students' comprehension of presented material by invoking and building upon understandings previously developed in the partner language. In the following excerpt from the English class in the second set of observations, Ms. Myers deliberately cites a particular activity the students completed in Spanish class in the previous week:

GM: Today, our goal is, “we will be able to use the text and illustrations,” again, “to help us retell,” or tell again, “the main events.” You did this last week in Spanish! Do you remember talking about the main events in Spanish? I see a couple of people nodding

yes, raise your hand if you remember talking about main events in Spanish. In Spanish, I saw some of your work, you did it on paper like this, it was folded with four boxes.

Similarly, the teachers frequently selected texts for read alouds and read togethers jointly, drawing upon identical texts in translation or texts that contained similar story arcs such that students would become familiar with a story in one language, then hear it for a second time in the partner language. The Mundos library contained no shortage of level-appropriate literature in both languages related to curriculum themes, including several books that were available in translation in both English and in Spanish. However, in the rare event that the teachers wished to utilize a text that was only available in English, Ms. Lera utilized English books for read alouds, translating them into Spanish herself as she read.

A final sheltering technique encountered only in the Spanish class was the use of translations or paraphrases into English, provided by either the teacher or the students, as well as the identification of Spanish-English cognates.

Code Switching

Similar to the investigation into student code switching outlined in the previous chapter, an analysis of instructor use of the non-target language revealed that Ms. Lera drew upon code switches into English regularly, while Ms. Myers did not use Spanish at all during instruction. This analysis additionally encompassed teacher reactions to student non-target language use, and evidenced Ms. Lera's decreasing tolerance of student code switching as the year progressed.

Although there were no instances of code switching in the English classroom on the part of the teachers or the students, teacher code switching in the Spanish classroom occurred on a

consistent basis across observation periods, with an average of one partial or entire English utterance every four minutes in the first set of observations and one every five minutes in the second. In the context of whole-group reading activities, Ms. Lera employed code switching exclusively for the purposes of translating or otherwise clarifying information which she had related previously in Spanish. For example, she offered the following translation in the course of a read aloud:

ML: “La señora gansa llevó a su polluelo al estanque.” El estanque es the pond, OK?
Ms. Goose brought her chick to the pond. El estanque is the pond, OK?

Similarly, in both observation periods, she provided translations or English paraphrases of longer portions of instructions that she wished to emphasize, such as in the following excerpt from a discussion on using reported speech to retell a story:

ML: . . . yo no puedo usar las palabras del papá, puedo contar lo que dice el papá usando que- I can tell what the dad say [*sic*] but I cannot use the words that the dad say [*sic*], OK? Because we are telling the story. *I cannot use the dad’s words, I can tell what the dad says using- I can tell what the dad say [*sic*] but I cannot use the words that the dad say [*sic*], OK? Because we are telling the story.*

Finally, she utilized code switching in both sets of observations to identify cognates with English, as in the following discussion of potential story settings:

Lara (Spanish): A un festival. *At a festival.*

ML: A un festival, muy bien, vamos a ponerlo aquí. Fíjate, in English and in Spanish it’s the same. [In English] Festival. *At a festival, very good, let’s put that one here. See, in English and Spanish it’s the same. [In English] Festival.*

An aspect of instruction that did undergo appreciable change with regard to code switching over the course of the observations, however, was Ms. Lera's permissiveness of student code switching, which diminished as time progressed. In the earlier observation period, Ms. Lera often reminded students of their license to speak in English if they so desired, for instance:

ML: A ver, Silvia, cuéntame, ¿qué es lo que ha pasado? *OK, Silvia, tell me, what happened?*

Silvia (English): Uh, la- la niño [*sic*] dice eso es la, uh- *Uh, the boy says that is the, uh-*

ML: ¿Qué? [pausa] Puedes explicármelo en inglés. Si quieres, si lo has entendido. *What? [pause] You can explain it to me in English if you want, if you understood.*

Silvia (English): He, the boy was sayin' that thing, he didn't- it didn't scare him.

Moreover, in earlier classes, Ms. Lera was more likely to ask students for English translations of vocabulary words encountered in texts than in later classes, as opposed to requesting explanations of the word in Spanish. For example:

ML: Una gansa. ¿Quién sabe qué es gansa en inglés? *A goose. Who knows what gansa is in English?*

Sofia (Spanish): Goose.

Of the eight questions relating to word definitions recorded in the two analyzed classes from the first round of observations, one of the questions constituted an explicit request for a translation. Conversely, of the twenty-three vocabulary-related questions observed in the second round, she did not request an English translation in any of them. On the contrary, in

later classes, Ms. Lera often made her desire for target language explanations explicitly clear, even before selecting a student to respond, as in the following excerpt from a read aloud in the second observation period:

ML: ...¿Qué es derretirme? ¿Quién sabe qué es derretirme? No lo quiero en inglés. Quiero que me lo expliquen. ¿Qué será derretirme, Alberto? ... *What is melting? Who knows what melting is? I don't want the word English. I want you all to explain it to me. What is melting, Alberto?*

Alberto (Spanish): Como que- como que- como cuando tú- cuando tú haces- um cuando tú- *Like- like- like when you- when you um when you-*

ML: ¿Haces qué? *Do what?*

Alberto (Spanish): Cuando tú pones- como cuando tú pones un hielo, *When you put-like when you put a piece of ice,*

ML: Mhmm? *Mhmm?*

Alberto (Spanish): Y lo pones afuera en el sol, el otro día se hace en agua y no está allí y sólo está agua. *And you put it outside in the sun, the next day it turns into water and it's not there, and only water is there.*

ML: Sólo está el agua, ¡Muy bien explicado, Alberto! *Only the water is there, very well explained, Alberto!*

The previous excerpt exemplifies Ms. Lera's stricter approach towards student English use observed in the second set of observations: although Alberto was apparently struggling to define the term in Spanish, Ms. Lera opted to help him produce a target language response—guiding him with a clarification question and subtly encouraging him to continue as he spoke—rather than allowing him or another student to translate the term into English.

Language Modeling

In both languages and across observation periods, the observed instructors utilized students as language models on a number of occasions, prompting them to repeat or paraphrase their peers' correct responses. In the following excerpt, Ms. Myers calls upon Anna to serve as a model for the class after she demonstrates evidence of being one of the only students with a solid comprehension of the presented material:

GM: [directed at whole class] So our new strategy goes underneath...?

Anna (Spanish): Fluency.

GM: Underneath fluency. It's a strategy to help with fluency. Raise your hand if you remember what our new strategy is called. [pause] What's our new strategy called?

Students (a few): Fluency!

GM: Nope, that's- that's the- the whole section. The strategy that helps with our fluency, Anna is called...?

Anna (Spanish): Pay attention to punctuation marks.

GM: Good, can everyone say that?

Students (most): Pay attention to punctuation marks.

This approach was prevalent in the Spanish classroom as well, such as the following example, in which Ms. Lera requests that a student volunteer to repeat Jorge's answer:

Jorge (Spanish): En pri- primer lugar, la mamá le- le- le hace una pregunta a Javier. *First, the mom asks Javier a question.*

ML: ¡Muy bien! ¡Muy bien! Esa es una buena forma de empezar. A ver, quién me puede repetir cómo me lo ha dicho Jorge? A ver...? *Very good! Very good! That is a great way to start. Let's see, who can repeat that for me the way that Jorge said it?*

Anna (Spanish): En primer lugar, la mamá se- hizo [*sic*] una pregunta a Javier. *First, the mom asked Javier a question.*

Ms. Lera also drew upon whole-group modeling, often for the benefit of English-dominant students, such as in the following instance:

ML: Qué más? Qué es un medio de transporte? A ver, alguien que no haya- Ellen? *What else? What is a mode of transport? Let's see, someone who hasn't- Ellen?*

Ellen (English): A horse.

ML: A horse! Muy bien, cómo es horse? Un- *A horse! Very good, how do you say horse?*

Ellen (English): You can ride on it!

ML: Muy bien, pero cómo es en español? *Very good, but how do you say it in Spanish?*

Ellen (English): I don't know.

ML: Cab- ¿cómo se llama? *Hor- how is it called?*

Students (most): ¡Caballo! *Horse!*

ML: ¿Cómo se llama, Ellen? *How is it called, Ellen?*

Ellen (English): Caballo. *Horse*

Reactions to Student Responses

Having described trends in teacher questioning, language use, as well as a number of instructional practices aimed at increasing student comprehension and participation in each classroom, I will here focus on teacher-student interactions, outlining the manner in which each instructor reacted to various types of student utterances. As such, in the following, I will compare

and contrast patterns in error correction, emotional effusiveness upon receiving correct responses, and permissiveness of unsolicited student comments as demonstrated by the program instructors.

On the whole, Ms. Myers and Ms. Lera were positive and encouraging throughout their interactions with students. Accordingly, they both took measures to maintain this air of positivity even when correcting student speech errors. To achieve this, both teachers corrected speech errors by reiterating the student's utterance with the proper form, before transitioning immediately to the next topic of conversation, without asking the student to repeat the corrected sentence or phrase. This precise strategy was evident in both the Spanish and the English classrooms, as illustrated by the following excerpts:

(1)

James (English): Um- finalmente- um- Javier dice, "qué bonito día que- um- celebro [sic] el día de presidente [sic]" *Um- finally- um- Javier says, "what a beautiful day to- um- celebrate President's Day."*

ML: Muy bien, un bonito día para celebrar el día de los presidentes. Muy bien. A ver, ¿algunos tienen alguna otra manera de decir el final? ¿Anna? *Very good, a beautiful day to celebrate President's Day. Very good. Let's see, does anyone have another way to tell what happened at the end?*

(2)

Jesse (English): I'm wondering that [sic] she lost Knuffle Bunny.

GM: You're wondering if she lost Knuffle Bunny? I'm wondering that, too. I'm predicting that maybe she did. You're wondering the same thing? Anyone have a different question that you're wondering about? What are you wondering about, Lisa?

With respect to the frequency of error correction, the English teacher was markedly more likely to correct student errors during the first set of observations, in which she corrected 100%

of student speech errors, while the Spanish teacher corrected only 29% of such errors. During the second round of observations, both teachers corrected roughly half of student speech errors.

In a further distinction between the error correction strategies of the two instructors, the Spanish teacher's decision to correct student errors or clarify incomprehensible responses appeared to be motivated, at least in part, by her expectations of the linguistic capacity of each child. In this regard, she tended to overlook significant errors in form and content in the responses of English-dominant students with no Latino background, a phenomenon which the following interaction with Lisa illustrates:

ML: *¿Qué pasará picoteando el cascarón?...¿Qué pasará después?... A ver, Lisa?
What will happen as he pecks at the shell?... What will happen next?... Let's see, Lisa?*

Lisa (English): *Mmm, ¿un pato? Mmm, a duck?*

ML: *¡Un pato! Va a-? S-? ¡Salir! Vamos a ver, esto es lo que dice Lisa. A duck! Is
going to-? Co-? Come out! Let's see, that's what Lisa says.*

In this segment, Lisa offers a single noun phrase in response to Ms. Lera's request for a prediction. Lisa's utterance provides no ostensible indication that she understood the question. However, rather than asking Lisa to elucidate her response, the instructor expands Lisa's utterance into a coherent prediction, and subsequently acknowledges it as an acceptable answer. At contrast with this is Ms. Lera's immediate correction of the gender agreement error which James, an officially English-dominant student with one Spanish-speaking parent, incurs in the following example:

ML: *¿Quién se acuerda de los personajes de ayer? Who remembers the characters from
yesterday?*

[...]

James (English): ¿La papá? [sic.] *The dad?*

ML: El..? El..? *The...? The...?*

James (English): Papá. *Dad.*

ML: El papá, no la papá [sic.]. “*El papá,*” not “*la papá [sic.]*”.

Ms. Lera’s determination to correct James’s error over Lisa’s, in spite of the fact that James’s minor grammatical mistake did not affect the comprehensibility of his response, was apparently derived from her loftier expectations of James’s Spanish proficiency due to his Latino background.

In similar fashion, Ms. Lera’s evaluations of each student’s communicative competence seemed to influence the level of enthusiasm expressed in her reactions towards student contributions to whole-group reading discussions. For example, Lisa’s contribution to a conversation brainstorming settings for realistic fiction texts earned a far more effusive display of praise from the teacher than Veronica’s essentially identical response that preceded it:

Veronica (Spanish): En la iglesia? *In a church?*

ML: También en la iglesia. *Also in a church.*

Lisa (English): ¿El baño? *The bathroom?*

ML: ¡En el baño! ¡También! ¡Muy bien! *In the bathroom! There too! Very good!*

Furthermore, Lisa’s two-word response from the previous example garnered a comparable amount of praise as the lengthy statement that Anna, a Spanish-dominant student,

produced later in the activity summarizing an entire read together text which, for practical purposes, will not be reproduced here. At sixty three words, Anna's summary represented what was definitively the longest student utterance of the class, and was received with an enthusiastic "¡Muy bien!" ("very good!") from the instructor.

Indeed, Ms. Lera was, in general, more overtly emotional with her praise than Ms. Myers, whose reactions were rarely effusive. However, Ms. Lera's evaluation of target language responses according to the linguistic proficiency and background of the speaker represented an approach that had no equivalent in the English classroom.

Finally, permissiveness of unsolicited student responses represented a further point of divergence in the teachers' approaches to reacting to student responses. Ms. Lera was highly amenable to such unsolicited comments, often expanding upon them and converting them into further topics for class discussion, as in the following example, in which she draws upon Eva's personal comment to engage the remainder of the class in the context of a read aloud on apples:

Eva (English): Yo me como todo. *I eat the whole thing.*

ML: Muy bien. Y la semilla también? *Very good. And the seeds too?*

Eva (English): ¡No! *No!*

ML: No [se rie]. Y la hoja? *No [laughs]. And the leaf?*

Students (a few) : ¡No! *No!*

ML: ¿Y el tallo? *And the core?*

Students (half): ¡No! *No!*

Ms. Myers, by contrast, was less receptive to such unsolicited comments, as is demonstrated by her reaction to Roger's attempt at contributing personal knowledge about lizards to a discussion centered around activating prior knowledge while reading:

GM: So if you are reading a book about Halloween, you might think "what do I already know about Halloween? Or if you are about to start a brand new book about lizards, you might think, "what do I already know about...?"

Students (most) and SG: Lizards!

GM: Roger?

Roger: Um lizards have um-

GM: [Motions for Roger to stop talking] Or if you're reading a spider book what are you going to think about?

Anna: Spiders.

Observed Instruction Summary

Taken together, these observed instructional practices demonstrate appreciable differences between the first grade Mundos classrooms. Whole-group reading activities occupied a greater proportion of instructional time in English than in Spanish across both rounds of observations. Teacher questioning patterns in the English classroom invoked varied and generally more in-depth understandings of the texts during whole-group discussions. Further, Ms. Myers often structured these activities to reinforce and instruct students in elements of strategic reading. Analogous discussions in the Spanish classroom, by contrast, were superficial in scope, rarely made explicit reference to reading strategies, and accorded more closely with the conventions of conversational discourse, drawing heavily upon summary requests.

On the whole, discourse was more student-centered in the English class than in the Spanish class. An analysis of teacher utterance length revealed that the maximum length of a teacher utterance was significantly greater in the Spanish classroom. Moreover, Ms. Myers made regular use of paired student-student dialogues throughout whole-group activities, thereby allowing a greater number of students to participate orally, albeit not in a public context. By contrast, such dialogues were used sparingly in the Spanish classroom.

The two instructors employed sheltering techniques which effectively rendered input more comprehensible for the language learners of each class. Similarly, both instructors explicitly built upon understandings previously developed in the partner classroom. However, Ms. Lera was the only instructor of the pair to provide students with explicit comparisons between the two program languages as well as native language support.

Finally, the two instructors demonstrated divergent tendencies in their reactions to student responses. Ms. Myers initially made more frequent corrections of student speech errors, and often required students to use particular sentence starters or formats. Conversely, Ms. Lera was more sparing in her error correction, frequently overlooking significant errors on the part of English-dominant students. In general, her reactions were more effusive than those of Ms. Myers, and seemed to take into account her expectations of the students' linguistic abilities in Spanish. At further contrast with the English classroom, Ms. Lera was the more likely of the pair to affirm and expand upon unsolicited student comments.

11. Teacher Goals and Approaches

Having outlined the instructional practices that prevailed in each of the Mundos classrooms, the present chapter addresses the teachers' views on their own roles in the bilingual program. In their initial joint interview, conducted prior to the start of the first round of observations, Ms. Lera and Ms. Myers recognized close communication and mirroring of instruction between paired teachers as paramount to the success of the program. Indeed, it was observed that the teachers dialogued frequently throughout the day to discuss the curricular material presented in each class, often reviewing examples of student work completed in the other language. However, as the previous chapter demonstrates, it became apparent over the course of the classroom observations that significant discrepancies existed in the instructional practices employed in the two classes. I therefore crafted an additional set of interview questions, administered to each instructor separately after the classroom observations had concluded, with the goal of discovering the pedagogical philosophies and goals motivating each aspect of observed instruction. In what follows, I present the information related through these interviews, juxtaposing the two instructors' professed views, goals, and approaches.

Goals for Student Language Use

Ms. Myers did not profess any defined goals for student conversation in whole-group discussions of texts. She conceded that she was primarily concerned with the students' comprehension of the written material and their understanding of the CAFE strategies. She did, however, acknowledge that she used whole-group dialogues to target issues of language use, such as encouraging students to restate questions in their responses, and using particular sentence

frames or starters as appropriate (e.g. using “I predict” to introduce a prediction). Nonetheless, she did not consider these issues of language use to constitute instructional objectives.

By contrast, Ms. Lera acknowledged that such whole-group discussions represented a significant opportunity for the students to practice their oral academic Spanish, an opportunity, she pointed out, that they were unlikely to receive in any other capacity either in or out of the classroom. Rather than framing discussions of texts through the lens of strategic reading, Ms. Lera expressed that she was content leading students in surface-level discussions of the text, as these conversations prove more linguistically fruitful for the students, whose limited comprehension in Spanish generally prevented them from engaging more deeply with the text.

Encouraging Linguistically Rich Responses

Ms. Myers acknowledged that, in order for students to give longer answers in whole-group discussions, they must possess both strong oral language skills as well as a solid comprehension of the text at hand. Thus, to encourage students to provide more robust responses, she drew upon paired student conversations interspersed throughout whole-group discussions. Such discussions offer students the opportunity to rehearse their comments as well as hear their peers’ insights, thereby enabling them to present more information in their public responses.

Ms. Lera had a similar view of student response length as a product of the students’ comprehension and their oral language ability. While Ms. Lera recognized the efficacy of paired student discussions in increasing student response length, she explained that such student-student dialogues were practically impossible to implement in her classroom early in the year, due to the

students' marked tendency to use English when conversing with peers. Instead, to encourage students to provide more information in their responses, she would challenge students demonstrating the highest levels of comprehension, asking them brief follow-up questions invoking higher levels of thinking, but was careful not to cause any student to have stressful or negative experiences attempting to communicate in Spanish.

In order to provide students with appropriate challenges, Ms. Lera maintained the importance of considering the linguistic proficiency of each student in evaluating the quality of their responses. She explained this approach, comparing her response to Ellen, an English-dominant student with no Latino heritage, and Jorge, who is among the most competent Spanish speakers of the class, asserting:

[If] I asked, em, Ellen, “quién es el personaje?” (“*Who is the character?*”) and she say [*sic*], I don't know, “*el sapo*” (“*the frog*”), for me, it's as valuable as Jorge saying yes, “*el sapo porque el sapo, cuando está hablando con su amigo el sepo...*” (“*the frog, because the frog, when he is speaking with his friend the toad...*”) because you, you need to see the two levels... so if Jorge say [*sic*], “*el sapo*” (“*the frog*”) I say, “excuse me!?! You can do better than this!”

As a further means by which to encourage students to give more robust responses, both Ms. Myers and Ms. Lera professed relying on students to model their responses for the class, before having another student or the entire group repeat or rephrase the answer. In this regard, they each recognized a number of students whom they considered to be positive language models, or students with strong enough target language comprehension and oral language skills to be capable of consistently producing extended, accurate responses in public settings.

Encouraging Student Participation

To inspire wider participation in the English classroom, Ms. Myers acknowledged drawing upon such techniques as calling on students at random, the aforementioned paired student dialogues, as well as encouraging students to use a nonverbal signal displaying their agreement with a peer's statement. She maintained that these approaches increased student engagement in whole-group discussions and allowed students opportunities to participate without the pressure of presenting their answers publicly.

Ms. Lera cited the encouragement of oral student participation as an important instructional objective in the Spanish classroom. The fact that such a significant number of students, regardless of language background, were incapable or otherwise unwilling to provide public, oral answers in Spanish generated inequalities in participation rates among students that were not present in the English classroom. While many English-dominant students began first grade with little or no oral Spanish ability, all students entered the program with a baseline knowledge of spoken and written English. Compounding this disparity, several of the reportedly Spanish-dominant students were evidently reluctant to contribute to whole-group discussions at the start of the school year. Ms. Lera contended that this reticence among Spanish speakers stemmed from a lack of confidence in their own linguistic abilities. For this reason, Ms. Lera asserted the fundamental importance of creating a positive classroom environment in motivating students of diverse language backgrounds to communicate in Spanish.

To engender a supportive environment conducive to student communication, Ms. Lera drew upon simple, intuitive lines of questioning and responded positively to all contributions to group discussions made in Spanish. With these approaches, Ms. Lera aimed to foster a sense of

confidence in the students' individual linguistic capacities as well as a general appreciation for the Spanish language.

Views on Code Switching

Although Ms. Lera identified target language use on the part of the students as a foremost instructional objective, she revealed in interviews that she was not bothered by the students' use of English in her classroom, asserting that the students' engagement in classroom activities was the most fundamental classroom objective of all. Further, she suggested that, for some students, the ability to produce in Spanish would not develop until later years of the program. She claimed, however, that she made a concerted effort to decrease her own code switching as the year progressed, hoping that the students' receptive abilities would eventually improve to such an extent that they would be able to understand her without having recourse to English translations.

As was previously addressed, there were no instances of code switching in the English classroom. Nonetheless, Ms. Myers asserted that she was not opposed to the notion of students drawing upon their native language in speech or in writing, though it had never occurred to her to offer students this option, as their proficiencies in English were generally high enough that she did not perceive a pressing need for such native language support.

12. Learner Outcomes in the Mundos Program

Having once completed the classroom observations and instructor interviews, I attempted to evaluate the overall efficacy of the Mundos program by considering its impact on the students in the observed classroom. This endeavor, however, proved difficult given the wide variety of student outcomes in the program, even among students of similar linguistic backgrounds. The following chapter profiles a number of students that exemplify the divergent outcomes observed in the Mundos TWI program. It should be noted that the information provided in this section is anecdotal, and was related to the researcher through interviews and other forms of personal communication with the program instructors. As such, these descriptions are not based on quantified assessments of the students' academic or linguistic achievement.

Lisa

When asked to consider the profile—including language background, familial support, and personal attributes— of the student that experiences the most success in the Mundos TWI program, both teachers independently cited Lisa, an English speaker with no Latino background, as an example of the program's success for her profound gains in Spanish acquisition. Moreover, they both attributed Lisa's rapid improvement in spoken and written Spanish to high levels of familial support. All parties interviewed for the present study asserted the fundamental importance of home literacy practices to biliteracy development. Towards this end, the two teachers at the time of the study allowed students to bring home books from the classroom libraries, and encouraged parents to read to or listen to their children reading every night in both program languages. Ms. Lera further noted that Lisa's parents frequently requested Spanish

books to take home and that they often attended Spanish-language cultural events in the community with their children.

Furthermore, it is probable that affective factors positively impacted Lisa's Spanish acquisition. Outgoing and eager to please, Lisa overcame any embarrassment she once had in expressing herself imperfectly in front of the class once she realized that speaking in Spanish class earned her effusive praise from Ms. Lera. With less familial support, Ms. Lera speculated that Lisa might have opted to withdraw from the program as she cried on numerous occasions at the start of the school year when she could not understand teacher directives and explanations. However, it is also conceivable that this initial frustration, which was perhaps derived out of a willingness to comprehend classroom events, ultimately served as additional intrinsic motivation to acquire the language, while other English-speaking students may have been less bothered by gaps in their comprehension of and participation in group discussions.

Anna

While both teachers regarded Lisa's progress in developing communicative competence in Spanish to be impressive, they recognized, at the same time, that the students who enter the program with strong oral language and literacy skills in both languages flourish academically in a bilingual environment. Incidentally, when prompted to name the students that represented positive language models in each class— students that the teachers rely upon to consistently produce extended, accurate responses in public settings— four of the eight designated language models from each class were identical: Anna (Spanish), Marisol (Spanish), Jorge (Spanish), Veronica (Spanish); all four of these students entered the program with solid language skills in

both English and Spanish. Among them, Anna best exemplified balanced bilingualism: she contributed frequently to class discussions in both languages and across observation periods, regularly offering prolonged responses.

Clara

One subset of students not represented in teacher accounts of student successes in the program were heritage Spanish speakers, a designation which for the purposes of this study comprises students with a familial background in the language but limited practical proficiency. Through the program, these students were granted the opportunity to maintain what was in many cases their native language and develop it in both a social and academic capacity. Clara typified this phenomenon as an officially Spanish-dominant student whose English contributions to Spanish group discussions during the first set of observations evidenced a distinct preference for English. Ms. Lera explained that, although Clara's parents were decisively Spanish dominant and spoke little English, Clara's older, English-speaking sister assumed a great deal of the care-taking responsibilities. As a result, Ms. Lera concluded, Clara spoke Spanish infrequently in the home and lacked confidence in her Spanish speaking ability at the start of the school year. By the second observation period, however, Clara had converted into a major participant in class discussions, offering a total of twelve target language responses over two days of whole-group reading instruction. Without the Mundos program, it is doubtful that Clara's Spanish competence would have developed to the same degree.

Ginny

Both teachers cited Ginny— an English speaker with no Latino background, and the only student of the observed class who did not participate in the kindergarten Caminos— as a student whom they believed to be ill-served by the Mundos program, as her ostensible lack of motivation to learn Spanish impeded her from acquiring the language. Ginny consistently proved unwilling to speak Spanish publicly, and made few attempts to do so in writing. The instructors described Ginny as introverted and imaginative, and further asserted that she possessed a marked tendency to disengage from classroom activities that did not pique her interest. Ms. Myers and Ms. Lera further maintained that Ginny’s parents have not assumed an active role in her second language acquisition process. This confluence of affective and environmental factors precipitated Ginny’s lack of motivation to acquire Spanish, which, the teachers argued, is crucial to Spanish acquisition in the Mundos model. Since the students are not compelled to speak in Spanish, nor are they assessed on their fulfillment of content area standards in Spanish, the students must possess some degree of intrinsic motivation to learn the language, or else they will opt to communicate in English.

This observed inability to acquire Spanish as a result of a lack of motivation was not unique to Ginny, nor was it specific to English-dominant students. Indeed, there were four students, one of whom was English-dominant with one Spanish-speaking parent, and one of whom was classified as Spanish-dominant, who did not contribute orally to whole-group reading discussions in Spanish class throughout both observation periods.

The investigations into classroom observation and interview data presented over the course of the previous chapters partially addressed my first two research questions, comparing

student language use and instruction between program classrooms and across observational periods. The subsequent chapter addresses the latter half of my first two research questions, which compare observed student participation and instructional practices to those described in the literature on best practices in TWI programs.

13. Data Discussion and Analysis

Having established the teaching practices as well as the program- and school-wide frameworks suggested to realize the ideal of the TWI model in the literature review, followed by a description of the Davis School's Mundos program and, in particular, its two first grade classrooms, the following section integrates information presented in previous chapters to present a holistic picture of the program, comparing it to the ideal described in the literature. The section further suggests implications in reference to my third and final research question, which deals with the relationship between various program- and classroom-level factors and how their interaction could account for observed language use patterns. This third question will be addressed more fully in the final chapter.

Mundos Program Structure and Goals

While the Mundos program affirmed its dedication to fostering full multilingual competence in all participants, several features of the program revealed a preference towards academic success and linguistic proficiency in English over Spanish. The stated objectives of the Mundos program, which included developing full bilingual proficiency in all students, encouraging high levels of academic achievement, and fostering in students an appreciation for diversity, were in complete alignment with the CAL (2014a) definition of dual language education goals, though the program did not ostensibly make any concerted effort to integrate particular biculturalism standards into the curriculum beyond integrating a diverse group of students. In support of the Mundos vision of bilingualism, the program's curriculum, which purportedly extended across classrooms, accorded with suggestions in the literature to set high

standards for bilingual students that are aligned across both languages as well as with those of the remainder of the school (Cummins, 1994; Guerrero & Sloan, 2001). However, the fact that the program did not assess students in both languages, as the literature recommends (Howard et al., 2007), engendered a lack of accountability in the Spanish classroom and points to a potential discrepancy between the program's attested and actual goals.

In fact, although the *Mundos* program cited full bilingualism as one of its primary aims, it was simultaneously advertised as an enrichment program for academically skilled students. Indeed, by means of a selective entrance examination, the program only admitted the highest-performing students on measures of English oral language and literacy skills. Conversely, students were not tested on measures of Spanish proficiency prior to entry into the program. This construction of the TWI class as a 'gifted and talented' program sent students the implicit message that, while knowledge of Spanish is advantageous, it is a luxury available only to those who demonstrate academic prowess in English. The aforementioned imbalance in accountability between the Spanish and English classrooms augmented this message, cementing the notion that academic achievement in English was of primary importance, and that academic achievement in the Spanish classroom was not only of lesser value, but was also not necessarily expected.

This preference towards English was reflected in the distribution of languages of instruction as well. The *Mundos* program adopted the 50:50 model of two-way immersion, in which students theoretically receive exactly half of their total instructional time in each program language. However, 'specials' such as music, art, and gym—which the students attended for one forty-five minute block of each school day—were conducted exclusively in English. In practice, this signified that weeks in which the students received primary instruction in English were fully

immersive and largely uninterrupted by Spanish, while weeks in which students received primary instruction in Spanish were interrupted periodically by entire blocks of instructional time in English. Accordingly, for every two weeks of school, 33.75 hours of instructional time were conducted in English, as opposed to 26.25 instructional hours in Spanish. As such, the actual ratio of English instructional time to Spanish instructional time was approximately 56:44. This disparity in language use grows yet more severe when one considers the students' observed tendency to speak in English during recreational activities, as well as in the context of unstructured social and academic interactions in the Spanish classroom.

A similar predilection towards English was observed in the program's approach to early literacy instruction. Since the majority of Mundos students required substantive instruction in Spanish early literacy skills, the program's professed simultaneous approach to early literacy instruction was effectively compromised, as students were able to progress more rapidly with reading and writing curriculum standards in English. This sequential approach to early literacy instruction in which all students become proficient readers in English before initiating full minority language phonics instruction does not represent one of the models of initial literacy instruction recognized in the literature on TWI programs (Howard, & Sugarman, 2009).

Moreover, the Mundos program fell short of the six year duration recommended in the literature to ensure full bilingual proficiency for all students (Collier, 1989; Cummins, 1981; Howard et al, 2007; Lindholm-Leary & Borsato, 2006), a factor which all instructors cited as detrimental to the students' Spanish development. While the Mundos program nominally extended from kindergarten to fourth grade, the program only offered full bilingual instruction—with at least fifty percent of primary instructional time conducted in the minority language—

from first through fourth grade. All parties interviewed for the present study expressed regret that the school did not possess the financial support necessary to extend the program into later grades, or to provide a more comprehensive kindergarten. The instructors agreed that four years was insufficient to allow for full development of bilingual proficiency, and conveyed disappointment that the English-dominant students' hard earned progress in Spanish acquisition would come to an abrupt halt upon graduation from the program. They maintained, furthermore, that many Spanish-dominant students faced a similar dilemma as, in the absence of the program, they lost their only source of oral and written academic Spanish input. On the other end, a more thorough Spanish language kindergarten would allow for more complete coordination between program classrooms, thereby offering students a greater opportunity to directly transfer literacy and content area concepts from their native language to the second. Thus, it was improbable that all students acquired lasting bilingual competence under the *Mundos* program at the time of the present study.

Observed Student Language Use

Compounding the program's apparent emphasis on English over Spanish, the demonstrated discrepancies in student participation rates and response length between the English and Spanish classrooms evidence a marked preference among all students, regardless of the language they reportedly spoke in the home, for using English in public venues. This observation seemingly contradicts the parent-reported data on the students' languages of dominance, which indicated that well over half of the students spoke Spanish primarily, and reflects the complexity of determining a bilingual individual's language preferences and

competencies. Thus, these parent questionnaires reflected only the students' proficiencies and preferences for language use in the home, and did not encompass academic or social domains, a factor which both Mundos instructors pointed out in their interviews. To remediate this issue, as was mentioned previously, literature on multilingualism in school-aged children indicates that a more comprehensive survey detailing the students' contextual language use and the immigration history of their families could serve to offer instructors a more holistic view of the students' bilingual repertoires as well as their cultural backgrounds (Brisk & Harrington, 2000; de Jong, 2011).

It should be noted that, since the students' admittance into the program was contingent upon their academic English language ability, it is to be expected that most students would possess a higher level of academic proficiency in English than in Spanish. It thus stands to reason that the students were more capable of contributing regular, extended oral responses in English class than in Spanish class, as the data illustrates. Likewise, given the students' high initial English proficiencies as well as their demonstrated tendency towards frequent participation in the English classroom during the first observation period, one would predict that the percentage of increase in overall and individual participation rates would be greater in Spanish than in English, as is observed in the data.

Nonetheless, these results imply that the students in the observed classrooms, on the whole, possessed a lower level of Spanish proficiency, and a higher level of English proficiency, than the TWI model assumes, as the majority of officially Spanish-dominant students were initially unable or unwilling to provide extended answers in front of an audience of their peers. However, the dramatic gains in Spanish participation that some Spanish dominant students

experienced as the year progressed indicate that these students' initial reticence in Spanish class may not have been derived entirely from a lack of linguistic competence, and may, instead, have been wholly or partially motivated by social factors discouraging them from public minority language use. Ms. Lera and Susan Fernández, one of the program's founders, both spoke to this phenomenon in their interviews. While the former attributed the Spanish speakers' inhibition to a lack of confidence, the latter speculated that students harbored negative associations of their home language, and further declared that the Davis school had struggled with the issue of encouraging student Spanish use among native speakers since the program's inception, stating:

For the Spanish kids... it's this fight to get them to speak Spanish, because the common denominator is English. Why? It's the language of fun. English is the language of play and of fun. Spanish is the language of "go to bed," "it's time to eat," "you've got to do your homework," and "you're in trouble." It's not the language of play and fun and TV.

In spite of these pressures, the students did demonstrate promising increases in the frequency and quality of participation in Spanish from the first round of observations of the second. Public, oral participation in the Spanish class widened greatly as the school year progressed. Further, the students' demonstrated fourfold reduction in non-target language use demonstrates a development in the students' capacity to use Spanish in public, oral contexts. Moreover, though the overall average student response length did not change from the first round of observations to the second in the Spanish classroom, shifts in patterns of teacher questioning illustrated an increased student capacity to respond to open-ended questions: the number of summary requests increased by more than a factor of three, the incidence of questioning requesting inferences doubled, and the amount of questions regarding vocabulary nearly tripled

as, in the second round of observations, vocabulary-related dialogues were unlikely to constitute simple translation requests, but rather extended discussions of encountered terms in the target language.

However, although the students displayed significant and rapid gains in Spanish class participation from the first set of observations to the second, their performance in Spanish never equalled that of English. Furthermore, the data collected for the present study evidenced that students of all language backgrounds did not engage in unstructured academic and social language use with one another in Spanish throughout both observation periods. It is important to remember that the TWI model operates on the assumption that second language development is predicated on extensive interactions with native speakers, and relies on both teacher-student and student-student dialogues to facilitate this development. Therefore, the Mundos students' demonstrated reluctance towards speaking with one another in Spanish effectively undermined this central feature of the TWI model.

Again, this observed discrepancy in performance is not necessarily surprising given the students' high initial levels of English competence, as guaranteed by the program's entrance examination. The students' apparent predilection towards English use in social contexts is similarly unsurprising, given that the dominant language of the larger school setting was English. Further, it should be noted that the officially Spanish-dominant students' tendency to use English among peers was not necessarily indicative of a lack of Spanish competence, but rather a natural product of social pressures towards English use in an English-dominant society. However, these findings further call into question the notion that the Davis school truly expects Mundos students

to achieve the same level of curriculum mastery and linguistic competence across languages given such marked disparities in initial language proficiencies and preferences.

Instructional Discrepancies and Similarities Between Classrooms

On the whole, both teachers utilized a reciprocal interaction model of instruction, scaffolded by a variety of sheltering techniques aimed at providing rich yet comprehensible input for second language learners, as is recommended in the literature (Carrasquillo, 1998; Howard et al., 2007; Lindholm-Leary, 2001; Palinscar & Brown, 1984). However, although Ms. Lera and Ms. Myers professed close collaboration and coordination, in reality, there existed substantive discrepancies in instruction between the two classrooms, which can be attributed to the teachers' divergent pedagogical approaches and goals. Ms. Myers's explicit teaching style and penchant for strategy-driven questioning accorded with her attested objectives for whole group reading discussions, through which she hoped to encourage students to become independent, strategic readers. As such, Ms. Myers drew upon read alouds and read togethers largely as a vehicle through which to instruct students in CAFE strategies and the corresponding sentence starters used to employ them. Conversely, Ms. Lera's observed use of simple questioning progressions that were in line with conversational discourse and invoked superficial features of the text was consistent with her primary goal of facilitating maximal target language use and increasing student confidence when producing in Spanish. Similarly, her emphasis on linguistic development accounts for the preponderance of questions related to word meanings observed in the Spanish classroom, as she drew upon read alouds and read togethers chiefly as a means by which to teach vocabulary, as opposed to reading strategies.

While neither instructor professed setting specific language learning objectives for the students, as the literature on effective TWI instruction advises (Howard et al, 2007), Ms. Lera demonstrated a somewhat greater consideration of the students' linguistic development than her English counterpart. Certainly, the comparatively low proficiencies of her students necessitated this heightened awareness of linguistic development. As such, Ms. Lera took deliberate measures to decrease students' inhibitions, a factor which Dörnyei & Csizér, (1998) identified as a primary facilitator of second language acquisition. In this regard, she was the less likely of the pair to correct student speech errors, at least initially; she consistently met target language responses, especially those of English-dominant students, with positivity and enthusiasm; and she acknowledged or expanded upon all student comments, even if they represented a divergence from the existing topic of conversation. These pedagogical tactics accord with Hernández's (1997) recommendation to value all forms of communication, thereby decreasing the sentiments of vulnerability many second language learners experience when attempting communication in immersive environments, and may have precipitated the impressive gains demonstrated in many students' Spanish participation throughout the school year.

Conversely, while English classroom could be described as a generally positive and nurturing environment, Ms. Myers was more discerning in the forms of participation she accepted, and was thus more inclined to correct student speech errors as well as being less receptive of divergent comments. Incidentally, although Ms. Myers did not usually acknowledge unsolicited personal remarks, she was the more likely of the two to deliberately engage with students about their personal experiences through questioning. This discrepancy reflects her fundamental aim of framing conversation during whole group reading activities in the context of

CAFE reading strategies: while she was apt to encourage students to consider their prior knowledge and experiences before and during reading— a characteristic of strategic reading—, it is conceivable that she did not regard unrequested personal storytelling as bearing the same instructional value.

Divergent patterns in teacher reactions to student responses reinforced impressions of the program's underlying preference for English over Spanish. Ms. Lera's tendency to react to student responses based on her own tacit expectations of their linguistic ability effectively privileged the responses of English-dominant students in her classroom, earning them enthusiastic commendations in spite of obvious syntax, word choice, and pronunciation errors that were often so severe as to significantly compromise comprehensibility. By contrast, Spanish-dominant students did not receive the same affirmation of their second language learning feats in the English classroom. Though this discrepancy in teacher reactions may have been partially motivated by differences in temperament between the two teachers, the fact that English-dominant students' accomplishments in the Spanish classroom were ostensibly more highly praised than those of Spanish-dominant students in the English classroom reinforced the impression that academic achievement in English was taken for granted, while similar achievements in Spanish were not expected, and were further regarded as supplementary to English fluency.

The prevalence of code switching in the Spanish classroom on the part of both the teacher and the students, and its corresponding absence from the English classroom, represented another distinction between the two Mundos instructors, and one that further cemented the position of English as a pervasive presence in instruction. It is probable that this imbalance in the occurrence

of code switching was chiefly motivated by the teachers' respective language proficiencies, as opposed to an ideological difference: while Ms. Lera spoke both English and Spanish with fluency, Ms. Myers was a monolingual English speaker, and the students were presumably aware of this distinction. Additionally, the students' high proficiencies in English likely precluded any inclinations to use Spanish during English class.

It is worth considering that literature on bilingual education has proven inconclusive on the subject of code switching and its role in TWI classrooms. Howard et al. (2007), for example, warn against regular non-target language use, arguing that second language learners often use native language support as a sort of linguistic crutch, by which they are able to circumvent the development of both productive and receptive skills in the target language. It is unclear whether the frequency of code switching observed in the Spanish classroom of the Mundos program was prevalent enough as to engender such a dependence. Other authors, however, emphasize the fact that code switching undoubtedly represents a fundamental skill to the bilingual communicative repertoire, and thus encourage TWI instructors to develop this competence in their students (de Jong, 2011). It merits reiterating that some non-target utterances observed in the Spanish classroom, especially on the part of the students, would not be included in some definitions of the term code switching, such as simple translations elicited by the teacher, or other utterances delivered entirely in English. Notwithstanding contrasting views on the relative merits of code switching, the observed imbalance in the incidence of code switching between Mundos classrooms implicitly bolstered the aforementioned disparity in prevalence between program languages: while the students' English skills were regularly recognized and drawn upon in the Spanish classroom, their Spanish skills were not acknowledged to the same extent in English

class. Thus, it is plausible that this discrepancy could have implicitly reinforced student apprehensions towards the use of Spanish in public contexts.

Notably, Ms. Lera's attitude towards code switching presented a discrepancy between a viewpoint expressed in an interview and the approach observed in actual instruction; while she professed in interviews that she hoped to decrease her own code switching, but did not wish to discourage students from using English, in reality, a reverse pattern was observed, in which the instructor's tendency to code switch remained constant—and consistently was utilized for translation of important or complex material already presented in Spanish—and the students' code switching decreased fourfold. It is unclear whether this dramatic reduction in the students' propensity to code switch was a product of decreasing instructor permissiveness of English use in the Spanish classroom, an organic result of the increase in the students' Spanish proficiencies, or some combination thereof.

In addition to drawing upon English language support to augment student understanding, Ms. Lera was the only one of the pair to provide students with explicit cross-linguistic connections, through the occasional identification of Spanish-English cognates and comparison of the grammar and phonological rules of the two languages. These techniques are suggested in the literature on emergent bilinguals to increase students' metalinguistic knowledge base and facilitate cross-linguistic transfer between languages (Garcia & Kleifgen, 2010; Nagy, García, Durgonoğlu, & Hancin-Bhatt, 1993). Again, the absence of these bilingual approaches was likely derived from Ms. Myers's lack of familiarity with the Spanish language, in conjunction with a diminished need for this type of support in the English class as a result of the students' generally high English proficiencies. Indeed, other approaches aimed at fostering the transferring of

understandings across languages were observed in both classrooms, such as the utilization of translated or related texts across classrooms, as is recommended in the literature (Carrasquillo, 1998), as well as the teachers' periodic requests for students to consider material apprehended in the partner classroom.

As a notable similarity between the two program classrooms, both teachers employed approaches by which to increase the linguistic richness of their students' responses, as is recommended in the literature (Anderson & Roit, 1998). In this respect, both instructors demonstrated an awareness of students whom they considered to be 'language models,' and professed utilizing student language modeling as often as possible, a suggestion that is found in the literature (Howard et al., 2007). Further, both instructors provided ample opportunities for target language use in the context of both teacher-student and student-student interactions, as Saunders and O'Brien (2006) recommend, though the latter form of discourse was observed infrequently in the Spanish classroom, Ms. Lera's sparing use of student-student dialogues was rendered a practical necessity as a result of the students' pronounced tendency to speak in English in unstructured settings.

In what follows, I will synthesize these details of observed instruction in the *Mundos* program with information on structural features of the program and observed student language use to evaluate the program's overall efficacy, identify aspects of the theoretical TWI model that are potentially incompatible with the practical realities of bilingual development in the U.S., as well as suggest areas in which further research is needed in order to ascertain the ideal TWI implementation. This chapter will further pose potential answers to the third research question

around which the present study is based, identifying the effects of particular structural elements of the Mundos program on observed instruction and student outcomes.

14. Conclusions and Implications

In gauging the impact of the Mundos program, I will assess the program’s efficacy in reaching its three stated goals— which, in turn, are in line with the primary goals set forth for the ideal TWI model as described by the Center for Applied Linguistics (2014a)— of transmitting “high levels of language proficiency and literacy” in both program languages, “high levels of academic achievement,” and “an appreciation for and an understanding of diverse cultures” to all program participants. Here, it is important to consider that the theoretical TWI model can potentially be utilized as a tool by which to enrich diverse populations. Through its unique integration of minority and majority language speakers, the model is theoretically capable of providing: bilingual proficiency for monolingual English speakers, native language maintenance for heritage speakers of minority languages, and improved academic performance for ELLs.

In practice, however, by virtue of the English language examination required for entry into the program, the Mundos TWI program served only the first two of the aforementioned student populations, and effectively excluded ELLs— a population which, notably, the program was originally designed to serve— from the potential benefits of bilingual instruction. Thus, to offer the most profound benefit to the greatest number of students, the program would need to discontinue its English-based placement exam and strive for more balanced numbers of English- and Spanish-dominant students.

Nonetheless, a concern stemming from the potential inclusion of strongly Spanish-dominant ELLs in the Mundos TWI program is the prospect of public backlash. As program founder Susan Fernández acknowledged, the Davis school’s initial decision to instate a test of English language proficiency as a requisite for entry into the Mundos program reflected the

school's desire to preserve the program from public scrutiny. The school thus resolved to offer bilingual instruction only to students who were already highly proficient in English, thereby safeguarding it from allegations that native language support hinders ELL acquisition of English. Even so— taking into account the theory of second language acquisition underlying the TWI model which maintains that the most profound language learning experiences are facilitated by ample conversations with native speakers— it would seem that, by preventing strongly Spanish-dominant ELLs from participating in the program, this resolution compromised the program's ability to develop full bilingual competence in its students, as it effectively deprived the English-dominant students from valuable sources of input in the minority language. Furthermore, by virtue of their limited English proficiency, it is probable that strongly Spanish-dominant ELL students would be more apt to engage in unstructured conversations with their peers in Spanish.

This tension between societal expectations and school values is not unique to the Mundos program. Indeed, it is illustrative of the complications that arise for any school wishing to implement bilingual programs. These schools must negotiate a multitude of frequently conflicting factors, including: societal views towards bilingualism; the motivations and goals of the students' families; school and district financial resources; as well as legislation regarding education and language policy.

Notwithstanding potentially adverse reactions from the community, the presence of Spanish-dominant ELLs in the Mundos program would enhance its capacity to foster bilingual competence in participating students. Strongly Spanish-dominant students would function as a catalyst for organic student-student conversation in the minority language as well as more robust teacher-student conversations, thereby improving learner outcomes in Spanish across the board.

However, the Mundos students' demonstrated proclivity towards using English in the context of student-student conversation reflected strong social pressures discouraging the use of Spanish in unstructured, public settings described in the literature (DePalma, 2010; Edelsky, 2006). This finding thus indicates that the inclusion of Spanish-dominant ELLs may not be sufficient to counter these pressures entirely. TWI programs across the country, regardless of the minority language population they serve, experience this inclination towards English. As such, further research is required to determine the instructional approaches, as well as the school- or program-level frameworks that can be used to prompt natural, unstructured use of the minority language both in and out of the classroom.

Furthermore, the prospect of balancing numbers of Spanish- and English- speakers in the student body is not as straightforward as literature on TWI suggests, in that determinations of language of dominance in bilingual students are often ambiguous. Thorough examinations of bilingual students' attitudes, preferences, and competencies in each program language often prove logistically impractical and inconclusive. Moreover, children hailing from households with monolingual, Spanish-speaking parents generally develop a strong proficiency in and, in many cases, a preference for English through their social interactions outside the home or with siblings, as well as through print and electronic media sources. Indeed, Hakuta and D'Andrea's (1991) survey evidenced that even first-generation Mexican immigrant children demonstrate a marked preference for English within a few years of arriving in the United States. This inherent difficulty in ascertaining language dominance in bilingual students represents an issue that is also not specific to the Mundos program, but rather indicates that the ideal TWI model fails to account for the practical reality of language proficiencies in emergent bilinguals.

As a result of the program's current admissions procedures and structural elements evidencing a preference for English over Spanish, the perception of Mundos as an enrichment program— or one that imparts supplementary skills exclusively to the highest-performing students— prevails among Davis School teachers and administrators, who view Spanish proficiency as secondary to English academic achievement. Certainly, this attitude incited the program's resolution against assessing students in the Spanish classroom, which likely bore a detrimental effect on outcomes in student achievement in the Spanish classroom, especially for those students lacking personal or familial motivation to acquire the language. However, it is not entirely clear to what extent, if at all, the school's construction of the program as one reserved for 'gifted and talented' students impacted program instructors' teaching practices and approaches.

Moreover, the program's efficacy in developing bilingual competence in students more generally was dubious, as any Spanish proficiency the students attained was likely to deteriorate upon graduation for those students lacking substantive Spanish input at home, an outcome which was practically guaranteed due to the program's four-year duration. In this regard, the program could support a vision of lasting bilingualism in all students by extending the program length by at least two years. In personal correspondence and interviews, Ms. Lera referred frequently to her brief experience as a middle school Mundos instructor, asserting that the program functioned at its best when students were allowed to continue their bilingual instructional program through fifth grade, as this was the point at which all students, regardless of their initial linguistic proficiencies and preferences, began to speak publicly in Spanish. Similarly, a more comprehensive Mundos kindergarten would allow all students a foundation in Spanish early literacy skills, thereby enabling more complete curriculum alignment between classrooms.

In general, observed discrepancies between the two program instructors' classroom practices and approaches were ostensibly linked to the teachers' divergent pedagogical goals and philosophies. However, in particular, the prevalence of code switching and other bilingual approaches— such as the identification of Spanish-English cognates and the explicit comparison of program languages— in the Spanish classroom, and their absence from the English classroom, raise questions concerning the value of code switching to emergent bilinguals. In this respect, additional research is necessary to address the following issues: if a central goal of the TWI model is the development of students' bilingual competence, should TWI instructors represent bilinguals themselves? Alternatively, would language learning outcomes in TWI classrooms improve if the teachers represented monolingual speakers of each program language, such that students do not come to rely on native language support? Finally, how does code switching on the part of the teacher and students in TWI programs affect language proficiency outcomes?

Furthermore, while the Mundos teachers articulated concrete pedagogical goals and philosophies motivating each observed aspect of instruction, it seemed that the teachers did not possess a well-developed vision of their students as emergent bilinguals. To their credit, the teachers maintained a number of best practices as described in the literature on TWI and dual language education, such as an avoidance of excessive form-related error correction, techniques facilitating transfer between languages, sheltering instruction for language learners, as well as the fostering of student language modeling and other approaches by which to encourage students to provide linguistically rich responses.

However, though both teachers reflected thoughtfully on their roles as facilitators of English and Spanish language acquisition, respectively, they did not profess any specific

bilingualism goals for the students. Furthermore, the demonstrated variations in instruction contradicted teachers' affirmed dedication to mirroring instruction between the two classrooms. The Davis school could remediate this lack of bilingual awareness by providing program instructors with professional development sessions outlining the goals and guiding principles of TWI, as well as by offering them more detailed information on the linguistic and cultural backgrounds of the students the program serves. This additional support would allow program teachers to be more sensitive to students' instructional needs in developing bilingual competence, and would encourage paired program teachers to communicate and align instruction more closely.

Similarly, the program would benefit from more comprehensive parent outreach and support, in order to articulate to them the program's bilingualism goals and instruct them in approaches by which to reinforce oral language and literacy skills in both program languages, with a particular emphasis on Spanish practice. It is important to consider that Dörnyei and Csizér (1998) identified motivation as a key facilitator of second language acquisition, and that Brisk (1998) and Howard et al (2007) recognize parental motivation as a chief determinant of this motivation. This is especially pertinent to Spanish-dominant students; as Wong Fillmore (1991) points out, native language maintenance in minority language-speaking communities residing in the United States represents an issue of critical importance to preserving generational ties within immigrant families.

In sum, the Davis school Mundos program was well-intentioned in its aim of fostering bilingualism and multicultural awareness in its TWI students, and the observed program instructors were generally cognizant of and responsive to their students' needs. Nonetheless, in

light of the preference towards English underlying the program's structure and admissions procedures— including the increased instructional time allotted to English, the preference for English-speakers in the admissions process, the lack of assessment and accountability in the Spanish classroom, and the absence of Spanish language support in the English classroom— the school could not reasonably expect students to achieve equal levels of language proficiency and academic curriculum mastery across the English and Spanish classrooms. It should be noted that a more thorough review of TWI programs as they are actually implemented in the U.S. would be necessary to ascertain the full breadth of structural features and instructional practices observed in these programs and their relationship with student outcomes, as well as more definitively identify potential issues with the theoretical model of TWI given student demographics in U.S. schools. However, these particular findings appear to suggest that the Mundos program would have benefitted from terminating its selective admissions policies and taking measures to enhance the status of Spanish as a valid language for social and academic use. In so doing, the program could harness the full potential of two-way instruction, tapping into the rich linguistic diversity of the community it serves to provide bilingual enrichment and high levels of academic achievement for all program participants.

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